

# MISSOURI SPECIES AND COMMUNITIES\* OF CONSERVATION CONCERN



## *Checklist*



Great egret

**JANUARY 2016**

\* Terrestrial Natural Communities. Does not include aquatic, geologic or cave communities.

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## ACKNOWLEDGMENTS

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**NOTICE:** Please submit reports of all sightings of species and natural communities listed in this checklist on the forms provided in the back of this checklist. Special criteria apply to birds and reports should follow the guidelines listed in Appendix A.

## INTRODUCTION

The Missouri Department of Conservation (MDC) is charged with the protection and management of Missouri's fish, forest, and wildlife resources. In the brief time since the settlement of Missouri, many plants and animals have declined to levels of concern and some have disappeared entirely. The species cataloged in this checklist represent 18 percent of the native vascular plants, 14 percent of the nonvascular plants, 28 percent of the vertebrate animals, and an unknown percentage of the native invertebrate species in Missouri. Together, the animals, plants, and natural communities represent Missouri's biological diversity—a natural heritage worth protecting.

The Department maintains two references relating to the status of listed plants and animals in Missouri: the *Missouri Species and Communities of Conservation Concern Checklist (Checklist)* and the *Wildlife Code of Missouri (Code)*. The *Checklist* is used mainly for planning and communication purposes. All native animal species in the State of Missouri are protected as biological diversity elements unless a method of legal harvest, harm or take is described in the *Code*. All native plant species in the State of Missouri are protected as biological diversity elements only on land owned by the Missouri Department of Conservation. Species listed in the *Code* under 3 CSR 10-4.111 and all federally listed endangered and threatened plants and animals protected by the Endangered Species Act of 1973 (ESA) are protected by the State Endangered Species Law 252.240. Some additional plants and animals in this *Checklist* also appear in the *Code* and are afforded special legal protection.

### **How to use the checklist**

The checklist, developed with the cooperation of specialists throughout the state, is a list of plants, animals, and natural communities that MDC is particularly concerned about due to population declines or apparent vulnerability. The global and state ranks show the level of concern for each Element's continued existence throughout its range and in Missouri, respectively. Global ranks are completed by the Natural Heritage/Conservation Data Center personnel and/or NatureServe.

The Global and State Ranking System methodology was developed and provided by The Nature Conservancy, Conservation Science Division, in association with the Network of Natural Heritage Programs and Conservation Data Centers. NatureServe 2005. NatureServe Central Databases. Arlington, Virginia. U.S.A.

The checklist is arranged by broad taxonomic groups (e.g., terrestrial natural communities, flowering plants, insects, fish, and mammals). Within each group, species are arranged alphabetically by their scientific names and terrestrial natural communities by community type. Each Element is identified by its scientific name, common name, state rank, global rank, state status, and federal status.

## TERMS AND DEFINITIONS

### **FEDERAL STATUS**

The federal status is derived from the provisions of the Endangered Species Act of 1973, as amended, which is administered by the U.S. Fish and Wildlife Service (USFWS). Passage of the Endangered Species Act of 1973 gave the United States one of the most far-reaching laws ever enacted by any country to prevent the extinction of imperiled animals and plants. Protecting endangered and threatened species and restoring them to the point where their existence is no longer jeopardized is the primary objective of the USFWS Endangered Species Program.

**E: Endangered:** Any species which is in danger of extinction throughout all or a significant portion of its range.

**T: Threatened:** Any species which is likely to become endangered within the foreseeable future.

**C: Candidate:** Plants or animals which USFWS is reviewing for possible addition to the list of endangered and threatened species.

**PE: Proposed Endangered:** Species officially proposed for listing as endangered; final ruling not yet made.

**PT: Proposed Threatened:** Species officially proposed for listing as threatened; final ruling not yet made.

**SAT: Threatened due to similarity of appearance:** Species is listed for its protection due to similarity of appearance with another listed species. Species listed as SAT are not biologically threatened.

### **STATE STATUS**

Rule 3CSR10-4.111 of the *Wildlife Code of Missouri* and certain state statutes apply to state *Code*-listed species.

**E: Endangered:** Determined by MDC under constitutional authority.

### **GLOBAL RANK**

A numeric rank (G1 through G5) of relative imperilment based on standard rank factors:

- the estimated number of Element Occurrences (EOs) throughout the Element's global, national, or subnational range;
- the estimated numbers of those EO with good viability;
- the estimated abundance of the Element (measured in terms of population for species Elements as well as occupied area or linear distance for both species and communities);
- the estimated size of the Element's range;
- the short- and long-term trends in the Element's distribution over its range;
- the estimated number of adequately protected EOs throughout the Element's range globally, nationally, or subnationally;
- the scope, severity, and immediacy of threats to the Element;
- the vulnerability of the Element to intrusion;
- the specificity of the Element's environmental requirements.

## **GLOBAL RANK (Cont.)**

**G1: Critically Imperiled:** At very high risk of extinction or elimination due to extreme rarity, very steep declines, or other factors.

**G2: Imperiled:** At high risk of extinction or elimination due to very restricted range, very few populations or occurrences, steep declines, or other factors.

**G3: Vulnerable:** At moderate risk of extinction or elimination due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors.

**G4: Apparently Secure:** Uncommon but not rare; some cause for long-term concern due to declines or other factors.

**G5: Secure:** Common; widespread and abundant.

**G#G#: Range Rank:** A numeric range rank (e.g., G2G3) is used to indicate uncertainty about the exact status of a taxon. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

**GU: Unrankable:** Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. Note: Whenever possible (when the range of uncertainty is three consecutive ranks or less), a range rank (e.g., G2G3) should be used to delineate the limits (range) of uncertainty.

**GNR: Unranked:** Global rank not yet assessed.

**GH: Possibly Extinct:** Known from only historical occurrences but still some hope of rediscovery. There is evidence that the species may be extinct but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is extinct.

**GX: Presumed Extinct:** Not located despite intensive searches and virtually no likelihood of rediscovery.

## **SUBRANK:**

**T#: Intraspecific Taxon (binomial):** Rank applies to a subspecies or variety. Rules for assigning T-ranks follow the same principles outlined above.

## **QUALIFIERS:**

**?: Inexact Numeric Rank:** Denotes inexact numeric rank; it is not used in combination with range ranks, GH, or GX.

**Q: Questionable Taxonomy:** Distinctiveness of this entity as a taxon at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority (numerically higher) conservation status rank.

## **STATE RANK**

Assigning national and subnational conservation status ranks for species and ecosystems (ecological communities and systems) follows the same general principles as used in assigning global status ranks. Subnational ranks are assigned and maintained by the Missouri Natural Heritage Program (MONHP).

**S1: Critically Imperiled:** Critically imperiled in the state because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

**S2: Imperiled:** Imperiled in the state because of rarity due to very restricted range, very few populations or occurrences, steep declines, or other factors making it very vulnerable to extirpation from the state.

**S3: Vulnerable:** Vulnerable in the state due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors making it vulnerable to extirpation.

**S4: Apparently Secure:** Uncommon but not rare; some cause for long-term concern due to declines or other factors.

**S5: Secure:** Common, widespread, and abundant in the state.

**S#S#:** **Range Rank:** A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

**SU: Unrankable:** Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

**S?: Unranked:** State rank not yet assessed.

**SE: Exotic:** An exotic established in the state; may be native in nearby regions (e.g., house finch or catalpa in eastern U.S.).

**SA: Accidental:** Accidental or casual in the state, in other words, infrequent and outside its usual range. Includes species (usually birds or butterflies) recorded once or only a few times at a location. A few of these species may have bred on the one or two occasions they were recorded. Examples include European strays or western birds on the East Coast and vice-versa.

**SP: Potential:** Potential that the species occurs in the state, but no extant or historic occurrences are accepted.

**SR: Reported:** Species reported in the state but without a basis for either accepting or rejecting the report, or the report not yet reviewed locally. Some of these are very recent discoveries for which the Program has not yet received first-hand information; others are old, obscure reports.

**SRF: Reported Falsely:** Species erroneously reported in the state and the error has persisted in the literature.

### **STATE RANK (Cont.)**

**SH: Possibly Extirpated:** Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the state.

**SX: Presumed Extirpated:** Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

### **QUALIFIERS:**

**?: Inexact or Uncertain:** Denotes inexact or uncertain rank; this should not be used with range ranks, SH, or SX.



## SPECIES CHANGES

### **STATUS CHANGES**

#### **PLANTS**

##### **Liverworts and Hornworts**

The following taxa require status changes to align their known distributions in Missouri with the current MONHP guidelines for designating state rank.

<b><u>Scientific name</u></b>	<b><u>Old State Rank</u></b>	<b><u>New State Rank</u></b>
<i>Aneura maxima</i>	SU	S1
<i>Anthoceros agrestis</i>	S?	S2
<i>Bazzania trilobata</i> var. <i>depauperata</i>	SU	S1
<i>Calypogeia sullivantii</i>	SU	S1
<i>Fuscocephaloziopsis catenulata</i>	SU	S2
<i>Fuscocephaloziopsis connivens</i>	SU	S1
<i>Jungermannia leiantha</i>	SU	S1
<i>Marchantia polymorpha</i> ssp. <i>polymorpha</i>	SU	S1
<i>Marsupella sullivantii</i>	S1	S2
<i>Metzgeria conjugata</i>	S1S2	S1
<i>Metzgeria furcata</i>	S?	S2
<i>Nardia lescurii</i>	S?	S1
<i>Nowellia curvifolia</i>	S?	S2
<i>Odontoschisma denudatum</i>	SU	S1
<i>Riccia austini</i>	SU	S2
<i>Riccia cavernosa</i>	SU	S1
<i>Riccia frostii</i>	SU	S1
<i>Riccia hirta</i>	SU	S2
<i>Riccia macallisteri</i>	SU	S1
<i>Riccia sorocarpa</i>	SU	S1
<i>Schistochilopsis incisa</i>	SU	S1

##### **Mosses**

The following taxa require status changes to align their known distributions in Missouri with the current MDC guidelines for designating state rank.

<b><u>Scientific name</u></b>	<b><u>Old State Rank</u></b>	<b><u>New State Rank</u></b>
<i>Acaulon muticum</i> var. <i>muticum</i>	SU	S1
<i>Anacamptodon splachnoides</i>	SU	S1
<i>Atrichum crispulum</i>	SU	S2
<i>Atrichum cylindricum</i>	SU	S1
<i>Brachythecium campestre</i>	SU	S1
<i>Bryhnia novae-angliae</i>	SU	S1
<i>Calliergonella cuspidata</i>	S?	S1
<i>Campylium protensum</i>	SU	S2
<i>Campylopus tallulensis</i>	S1	S2
<i>Codriophorus aciculare</i>	SU	S1

**STATUS CHANGES (Cont.)****Mosses (Cont.)**

<b><u>Scientific name</u></b>	<b><u>Old State Rank</u></b>	<b><u>New State Rank</u></b>
<i>Dicranella rufescens</i>	S1S2	S1
<i>Ditrichum rhynchostegium</i>	SU	S1
<i>Entodon brevisetus</i>	SU	S1
<i>Ephemerum serratum</i>	SU	S1
<i>Fissidens exilis</i>	SU	S2
<i>Gemmabryum klinggraeffii</i>	S?	S1
<i>Gemmabryum ruderae</i>	SU	S2
<i>Grimmia olneyi</i>	S?	S2
<i>Grimmia plagiopodia</i>	SU	S1
<i>Hypnum pratense</i>	SU	S1
<i>Jaffueliobryum rauyi</i>	SU	S2
<i>Jaffueliobryum wrightii</i>	SU	S1
<i>Micromitrium tenerum</i>	SU	S1
<i>Mnium hornum</i>	SU	S1
<i>Myurella sibirica</i>	S?	S2
<i>Orthotrichum diaphanum</i>	S?	S2
<i>Orthotrichum lescurei</i>	SU	S1
<i>Platylomella lescurei</i>	S?	S2
<i>Pleuridium acuminatum</i>	SU	S2
<i>Pleuridium sullivantii</i>	SU	S1
<i>Pohlia annotina</i>	SU	S2
<i>Polytrichastrum formosum</i> var. <i>densifolium</i>	SU	S1
<i>Pseudocampylium radicale</i>	SU	S1
<i>Pseudotaxiphyllum distichaceum</i>	SU	S1
<i>Ptychomitrium serratum</i>	SU	S1
<i>Pylaisiadelphina tenuirostris</i>	SU	S2
<i>Pyramidula tetragona</i>	SU	S1
<i>Rosulabryum flaccidum</i>	SU	S2
<i>Schistidium liliputanum</i>	SU	S1
<i>Sphagnum bartlettianum</i>	SU	S1
<i>Sphagnum capillifolium</i>	S1	S2
<i>Sphagnum cuspidatum</i>	SU	S1
<i>Sphagnum fallax</i>	SU	S1
<i>Sphagnum magellanicum</i>	SU	S1
<i>Sphagnum russowii</i>	SU	S1
<i>Sphagnum subtile</i>	SU	S2
<i>Syntrichia papillosa</i>	S?	S2
<i>Syrrhopodon texanus</i>	S1	S2
<i>Trematodon longicollis</i>	S1	S2
<i>Trichostomum tenuirostre</i> var. <i>gemmiparum</i>	SU	S1

## **STATUS CHANGES (Cont.)**

### **Mosses (Cont.)**

<b><u>Scientific name</u></b>	<b><u>Old State Rank</u></b>	<b><u>New State Rank</u></b>
<i>Ulota hutchinsiae</i>	SU	S1
<i>Weissia phascopsis</i>	SU	S1

### **Vascular Plants**

*Calopogon oklahomensis* (Grass Pink Orchid) from SU to S2 due to recent surveys in the Osage Plain Region.

*Cyperus compressus* (Coco Grass) from SH to S1 due to a recent discovery in Butler County.

*Perideridia americana* (Eastern Eulophus) from SU to S2 due to information submitted to the MONHP in the past decade. There are 14 populations currently tracked.

*Persicaria robustior* (Stout smartweed) as SH. There are only historical records of this species occurring in Missouri and is restricted to the Mississippi Lowlands Division. Known occurrences have been documented in Dunklin, New Madrid, and Scott counties.

*Potamogeton pusillus* var. *pusillus* (Slender Pondweed) from S1 to S3. Additional population discoveries indicate the status of this species is more secure than previously thought.

*Potentilla supina* ssp. *paradoxa* (Bushy Cinquefoil) from an SH to S1 due to recent surveys in Holt and Andrew counties.

*Trillium nivale* (Snow Trillium) from an S3? to S3. There is greater confidence in the known distribution and status of tracked populations due to recent surveys.

*Turritis glabra* (Tower Mustard) from an SH to S1 due to recent updates of a population in Mercer County.

### **CRUSTACEANS**

*Orconectes eupunctus* (Coldwater Crayfish) from S2 to S1. The species we have known of as Coldwater Crayfish (*Orconectes eupunctus*) already had a small natural range. It was recently determined that what was known as *O. eupunctus* will now be known as two distinct species, further reducing the known range of *O. eupunctus*. Recent survey results confirm that the species is known from only a handful of locations in Eleven Point River mainstem and the lower reaches of three 4th order tributaries. Further, the species is now threatened by an introduced-and-expanding population of invasive Ringed Crayfish in a direct tributary to one of the 4th order tributaries harboring the species.

### **INSECTS**

*Neoconocephalus lyristes* (Bog Conehead Katydid) from S3 to S1. Only one known population and recent work by the Schul lab has not uncovered additional information.

## **ADDITIONS**

### **Liverworts and Hornworts**

*Frullania kunzei* (A Liverwort) as S1. Four specimens have been confirmed from Barry, Carter, Douglas, and St. Clair.

### **Mosses**

*Atrichum crispum* (A Moss) as S1. Three specimens have been confirmed from Camden, Franklin, and Ste. Genevieve counties.

### **Vascular Plants**

*Carex atlantica* ssp. *capillacea* (Prickly Bog Sedge) as S1 due to a recent published description of the species (Pace and Brant 2015, Castanea 80:2) pg. 144-146). Populations of this species have been recorded in Bollinger, Madison, Ste. Genevieve, and Stoddard counties.

*Carex laxiculmis* var. *copulata* (A Sedge) as SU. *Carex laxiculmis* was tracked in previous years until abundant reporting of populations no longer warranted it to be listed. However, recent taxonomic advances now consider two varieties of the species that exist in Missouri. The status of var. *copulata* in MO is currently unknown.

*Carex laxiculmis* var. *laxiculmis* (A Sedge) as SU. *Carex laxiculmis* was tracked in previous years until abundant reporting of populations no longer warranted it to be listed. However, recent taxonomic advances now consider two varieties of the species that exist in Missouri. The status of var. *laxiculmis* in MO is currently unknown.

*Cladium jamaicense* (Jamaica Swamp Sawgrass) as S1. Species recently documented in Shannon Co.

*Spiranthes praecox* (Greenvein Ladies' Tresses) as S1. A population is now reported in Stoddard County due to recent determinations of herbarium specimens (Pace and Brant 2015, Castanea 80:2) pg. 144-146).

### **MOLLUSKS**

*Villosa lienosa* (Little Spectaclecase) added as an S3 species. Little Spectaclecase has long been considered to be a Species of Conservation Concern but was inadvertently left off of previous checklists.

### **INSECTS**

*Amblyscirtes linda* (Linda's Roadside Skipper) as S2S3 due to Federal listing petition and evidence of rarity.

*Bombus affinis* (Rusty Belt Bumblebee) as SU due to one collection from 1998. Populations have declined dramatically nationwide since the 1990s. Federally petitioned for listing.

*Bombus fervidus* (Yellow Bumblebee) as S1 due to two collections from the State. Southern edge of range. Populations in moderate decline.

*Dichagyris reliqua* (A Noctuid Moth) as S1 due to only one confirmed record for State and evidence of population decline.

*Papilio joanae* (Ozark Woodland Swallowtail) as SU due to lack of recent records and lack of information about population levels.

## **DELETIONS**

### **PLANTS**

#### **Mosses**

*Funaria Americana* (A Moss). An evaluation of the original literature report revealed that this species has been incorrectly recorded from Missouri.

*Grimmia ovalis* (A Moss). An evaluation of herbarium specimens revealed that this species has been incorrectly reported from Missouri and was based on a misdetermination of *Grimmia olneyi* and *Grimmia pilifera*.

*Hypnum lindbergii* var. *americanum* (A moss). The var. *americanum* is not recognized in the Flora of North America and is considered synonymous with the typical variety.

*Leucodon brachypus* (A moss). An evaluation of the literature reports and herbarium specimens revealed that this species has been incorrectly recorded from Missouri.

#### **INSECTS**

*Neoconocephalus bivocatus* Two-voiced Musical Conehead Katydid from S3 to S5 due to recent discoveries of populations by the Schul lab at University of Missouri. Species is not as tightly tied to high-quality habitat as previously documented.

*Neoconocephalus retusus* (Round-tipped Conehead Katydid) from S4? to S5. Widely distributed in natural and disturbed habitats.

## **TAXONOMIC CHANGES**

### **PLANTS**

#### **Liverworts and Hornworts**

The following taxa require nomenclatural changes based on the recently published, 2014, *Literature-based checklist of the Liverworts and Hornworts reported from Missouri* by John J Atwood.

##### **Old Name**

*Cephalozia catenulate*

*Cephalozia connivens*

*Lophozia incisa*

*Marchantia aquatica*

*Marsupella sphacelata*

*Riccia huebeneriana* ssp. *sullivantii*

##### **Revised Name**

*Fuscocephaloziopsis catenulata*

*Fuscocephaloziopsis connivens*

*Schistochilopsis incisa*

*Marchantia polymorpha* ssp. *polymorpha*

*Marsupella sullivantii*

*Riccia sullivantii*

#### **Mosses**

The following taxa require nomenclatural changes based on the recently completed bryophyte volumes of the *Flora of North America*.

##### **Old Name**

*Amblystegium polygamum*

*Amblystegium protensum*

*Amblystegium radicale*

*Anomobryum filiforme*

*Astomum phascoides*

*Bryum algovicum* var. *algovicum*

*Bryum cyclophyllum*

##### **Revised Name**

*Drepanocladus polygamus*

*Campylium protensum*

*Pseudocampylium radicale*

*Anomobryum julaceum*

*Weissia phascopsis*

*Ptychostomum pendulum*

*Ptychostomum cyclophyllum*

## **TAXONOMIC CHANGES (Cont.)**

### **Mosses (Cont.)**

#### **Old Name**

*Bryum flaccidum*  
*Bryum klinggraeffii*  
*Bryum miniatum*  
*Bryum pallescens*  
*Bryum ruderae*  
*Bryum subapiculatum*  
*Bryum uliginosum*  
*Drepanocladus aduncus* var. *kneiffii*  
*Hypnum lindbergii* var. *americanum*  
*Polytrichum formosum* var. *densifolium*  
*Racomitrium aciculare*

#### **Revised Name**

*Rosulabryum flaccidum*  
*Gemmabryum klinggraeffii*  
*Imbribryum miniatum*  
*Ptychostomum pallescens*  
*Gemmabryum ruderae*  
*Gemmabryum subapiculatum*  
*Ptychostomum cernuum*  
*Drepanocladus aduncus*  
*Hypnum lindbergii*  
*Polytrichastrum formosum* var. *densifolium*  
*Codriophorus aciculare*

## **INSECTS**

*Cicindela celeripes* to *Cylindera celeripes* due to recent taxonomic revisions.

*Cicindela pruinina* to *Dromochrous pruinina* due to recent taxonomic revisions.

*Cicindela circumpicta johnsonii* to *Habrosclimorpha circumpicta johnsonii* due to recent taxonomic revisions.

## TERRESTRIAL NATURAL COMMUNITIES

In addition to lichens, plants, and animals, the MONHP tracks occurrences of high quality natural communities. Terrestrial natural communities are interrelated assemblages of plants, animals, and other living organisms incorporated into their physical surroundings- including geologic substrate, soils, topography and aspect- that are shaped by climate and other natural processes. High quality sites are ones that provide diverse assemblages of native species and represent the least distressed examples of ecosystems that existed in Missouri prior to European settlement. These natural communities frequently provide the habitat necessary for Missouri's listed lichens, plants, and animals. Examples of high-quality aquatic natural communities are included in the MONHP, although SRANKS have not been assigned to individual aquatic natural community types. Because MDC tracks occurrences of high quality natural communities, we encourage the submission of site information on natural communities as we do for species listed in this Checklist.

State ranks are assigned to natural communities using criteria that are similar to species SRANKs. (Criteria include total number of occurrences, number of occurrences by grade [A-D], total acres, number of counties in which the community type occurs, number of protected occurrences, and threats.) Global ranks are not applied to communities due to the difficulty in reconciling Missouri's classification system with larger scale classifications.

Natural community types have been classified using *The Terrestrial Natural Communities of Missouri* (Nelson, 2005). This classification system was developed to accomplish an inventory of the state's natural communities, prioritized by quality, size and distribution, to help meet land protection goals. The terrestrial natural communities tracked in MONHP (high-quality examples) are listed below with their SRANKs by major community type.

### **COMMUNITY TYPE**

#### **FOREST**

#### **SRANK**

Dry-Mesic Loess/Glacial Till Forest	S3
Mesic Loess/Glacial Till Forest	S3
Dry-Mesic Limestone/Dolomite Forest	S3
Mesic Limestone/Dolomite Forest	S3
Dry-Mesic Chert Forest	S4
Dry-Mesic Sandstone Forest	S3
Mesic Sandstone Forest	S2
Dry-Mesic Sand Forest	S1
Mesic Sand Forest	S1
Dry-Mesic Igneous Forest	S4
Dry-Mesic Bottomland Forest	S3
Mesic Bottomland Forest	S2
Wet-Mesic Bottomland Forest	S2
Wet Bottomland Forest	S3
Riverfront Forest	S4
<b>Total Forest Types:</b>	<b>15</b>

<b>WOODLAND</b>	<b><u>SRANK</u></b>
Dry Loess/Glacial Till Woodland	S3
Dry-Mesic Loess/Glacial Till Woodland	S3
Dry Limestone/Dolomite Woodland	S3
Dry-Mesic Limestone/Dolomite Woodland	S3
Dry Chert Woodland	S4
Dry-Mesic Chert Woodland	S4
Dry Sandstone Woodland	S3
Dry-Mesic Sandstone Woodland	S3
Dry Sand Woodland	S1
Dry-Mesic Sand Woodland	S2
Dry Igneous Woodland	S4
Dry-Mesic Igneous Woodland	S4
Upland Flatwoods	S2
Bottomland Flatwoods	S1
Sinkhole Flatwoods	S2
Dry-Mesic Bottomland Woodland	S2
Mesic Bottomland Woodland	SH
Wet-Mesic Bottomland Woodland	S1
<b>Total Woodland Types:</b>	<b>18</b>

<b>SAVANNA</b>	<b><u>SRANK</u></b>
Dry-Mesic Loess/Glacial Till Savanna	S1
Mesic Loess/Glacial Till Savanna	SH
Limestone/Dolomite Savanna	SH
Chert Savanna	SH
Sandstone/Shale Savanna	SH
Sand Savanna	S1
<b>Total Savanna Types:</b>	<b>6</b>

<b>PRAIRIE</b>	<b><u>SRANK</u></b>
Dry Loess/Glacial Till Prairie	S2
Dry-Mesic Loess/Glacial Till Prairie	S1
Mesic Loess/Glacial Till Prairie	S1
Dry Limestone/Dolomite Prairie	S2
Dry-Mesic Limestone/Dolomite Prairie	S2
Dry-Mesic Chert Prairie	S3
Dry-Mesic Sandstone/Shale Prairie	S3
Sand Prairie	S1
Prairie Swale	S2
Hardpan Prairie	S2
Wet-Mesic Bottomland Prairie	S1
Wet Bottomland Prairie	S1
<b>Total Prairie Types:</b>	<b>12</b>



<b>GLADE</b>	<b><u>SRANK</u></b>
Limestone Glade	S2
Dolomite Glade	S3
Chert Glade	S2
Sandstone Glade	S2
Igneous Glade	S3
<b>Total Glade Types:</b>	<b>5</b>

<b>CLIFF/TALUS</b>	<b><u>SRANK</u></b>
Dry Limestone/Dolomite Cliff	S5
Moist Limestone/Dolomite Cliff	S4
Dry Sandstone Cliff	S4
Moist Sandstone Cliff	S3
Dry Chert Cliff	S3
Moist Chert Cliff	S2
Dry Igneous Cliff	S4
Moist Igneous Cliff	S4
Unconsolidated Bluff	S3
Limestone/Dolomite Talus	S4
Igneous Talus	S4
<b>Total Cliff/Talus Types:</b>	<b>11</b>

<b>STREAM EDGE</b>	<b><u>SRANK</u></b>
Sand Bar	S3
Gravel Wash	S3
Stream Bank/River Bank	S2
<b>Total Stream Edge Types:</b>	<b>3</b>

<b>WETLAND</b>	<b><u>SRANK</u></b>
Marsh	S2
Shrub Swamp	S2
Swamp	S1
Pond Marsh	S1
Pond Shrub Swamp	S2
Pond Swamp	S1
Ozark Fen	S2
Prairie Fen	S2
Forested Fen	S2
Glacial Fen	S1
Acid Seep	S2
Saline Seep	S1
Limestone/Dolomite Spring	S3
<b>Total Wetland Types:</b>	<b>13</b>

<b>CAVE</b>	<b><u>SRANK</u></b>
Aquatic Cave	S4
Terrestrial Cave	S4
<b>Total Cave Types:</b>	<b>2</b>
<b>Total Terrestrial Natural Communities:</b>	<b>85</b>

## THREATENED AND ENDANGERED SPECIES IN MISSOURI

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATE<sup>1</sup></u> <u>STATUS</u>	<u>FEDERAL<sup>2</sup></u> <u>STATUS</u>
<b>PLANTS</b>			
<i>Asclepias meadii</i>	Mead's Milkweed	Endangered	Threatened
<i>Boltonia decurrens</i>	Decurrent False Aster	Endangered	Threatened
<i>Geocarpon minimum</i>	Geocarpon	Endangered	Threatened
<i>Helenium virginicum</i>	Virginia Sneezeweed	Endangered	Threatened
<i>Isotria medeoloides</i>	Small Whorled Pogonia <sup>3</sup>	Endangered	Threatened
<i>Lindera melissifolia</i>	Pondberry	Endangered	Endangered
<i>Physaria filiformis</i>	Missouri Bladder-pod	Endangered	Threatened
<i>Platanthera leucophaea</i>	Eastern Prairie Fringed Orchid <sup>3</sup>	Endangered	Threatened
<i>Platanthera praeclara</i>	Western Prairie Fringed Orchid	Endangered	Threatened
<i>Trifolium stoloniferum</i>	Running Buffalo Clover	Endangered	Endangered
<b>MOLLUSKS</b>			
<i>Antrobia culveri</i>	Tumbling Creek Cavesnail	Endangered	Endangered
<i>Cumberlandia monodonta</i>	Spectaclecase		Endangered
<i>Elliptio crassidens</i>	Elephantear	Endangered	
<i>Epioblasma florentina curtisii</i>	Curtis Pearlymussel	Endangered	Endangered
<i>Epioblasma triquetra</i>	Snuffbox	Endangered	Endangered
<i>Fusconaia ebena</i>	Ebonyshell	Endangered	
<i>Lampsilis abrupta</i>	Pink Mucket	Endangered	Endangered
<i>Lampsilis higginsii</i>	Higgins Eye	Endangered	Endangered
<i>Lampsilis rafinesqueana</i>	Neosho Mucket		Endangered
<i>Leptodea leptodon</i>	Scaleshell	Endangered	Endangered
<i>Plethobasus cyphus</i>	Sheepnose	Endangered	Endangered
<i>Potamilus capax</i>	Fat Pocketbook	Endangered	Endangered
<i>Quadrula fragosa</i>	Winged Mapleleaf	Endangered	Endangered
<i>Quadrula cylindrica cylindrica</i>	Rabbitsfoot		Threatened
<b>CRUSTACEANS</b>			
<i>Cambarus aculabrum</i>	Cave Crayfish		Endangered
<b>INSECTS</b>			
<i>Nicrophorus americanus</i>	American Burying Beetle <sup>3</sup>	Endangered	Endangered
<i>Somatochlora hineana</i>	Hine's Emerald	Endangered	Endangered
<b>FISH</b>			
<i>Acipenser fulvescens</i>	Lake Sturgeon	Endangered	
<i>Amblyopsis rosae</i>	Ozark Cavefish	Endangered	Threatened
<i>Cottus specus</i>	Grotto Sculpin		Endangered
<i>Crystallaria asprella</i>	Crystal Darter	Endangered	
<i>Etheostoma cragini</i>	Arkansas Darter		Candidate
<i>Etheostoma fusiforme</i>	Swamp Darter	Endangered	
<i>Etheostoma histrio</i>	Harlequin Darter	Endangered	
<i>Etheostoma nianguae</i>	Niangua Darter	Endangered	Threatened
<i>Etheostoma parvipinne</i>	Goldstripe Darter	Endangered	
<i>Etheostoma whipplei</i>	Redfin Darter	Endangered	
<i>Forbesichthys agassizii</i>	Spring Cavefish	Endangered	
<i>Hybognathus hayi</i>	Cypress Minnow	Endangered	
<i>Notropis maculatus</i>	Taillight Shiner	Endangered	
<i>Notropis sabinae</i>	Sabine Shiner	Endangered	
<i>Notropis topeka</i>	Topeka Shiner	Endangered	Endangered
<i>Noturus eleutherus</i>	Mountain Madtom	Endangered	
<i>Noturus placidus</i>	Neosho Madtom	Endangered	Threatened
<i>Percina nasuta</i>	Longnose Darter	Endangered	
<i>Platygobio gracilis</i>	Flathead Chub	Endangered	

## THREATENED AND ENDANGERED SPECIES IN MISSOURI (Cont.)

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATE<sup>1</sup> STATUS</u>	<u>FEDERAL<sup>2</sup> STATUS</u>
<b>FISH (Cont.)</b>			
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	Endangered	Endangered
<i>Scaphirhynchus platyrhynchus</i>	Shovelnose Sturgeon		Threatened/SA
<i>Umbra limi</i>	Central Mudminnow	Endangered	
<b>AMPHIBIANS</b>			
<i>Cryptobranchus a. alleganiensis</i>	Eastern Hellbender	Endangered	
<i>Cryptobranchus a. bishopi</i>	Ozark Hellbender	Endangered	Endangered
<b>REPTILES</b>			
<i>Deirochelys reticularia miaria</i>	Western Chicken Turtle	Endangered	
<i>Emydoidea blandingii</i>	Blanding's Turtle	Endangered	
<i>Kinosternon flavescens</i>	Yellow Mud Turtle	Endangered	
<i>Nerodia cyclopion</i>	Mississippi Green Watersnake <sup>3</sup>	Endangered	
<i>Sistrurus catenatus</i>	Eastern Massasauga <sup>3</sup>	Endangered	Candidate
<i>Sistrurus tergeminus tergeminus</i>	Prairie Massasauga	Endangered	
<b>BIRDS</b>			
<i>Botaurus lentiginosus</i>	American Bittern	Endangered	
<i>Circus cyaneus</i>	Northern Harrier	Endangered	
<i>Egretta thula</i>	Snowy Egret	Endangered	
<i>Falco peregrinus</i>	Peregrine Falcon	Endangered	
<i>Limnothlypis swainsonii</i>	Swainson's Warbler	Endangered	
<i>Peaacea aestivalis</i>	Bachman's Sparrow	Endangered	
<i>Rallus elegans</i>	King Rail	Endangered	
<i>Sterna antillarum athalassos</i>	Interior Least Tern	Endangered	Endangered
<i>Tympanuchus cupido</i>	Greater Prairie-chicken	Endangered	
<b>MAMMALS</b>			
<i>Canis lupus</i>	Gray Wolf <sup>3</sup>		Endangered
<i>Canis rufus</i>	Red Wolf <sup>3</sup>		Endangered
<i>Corynorhinus townsendii ingens</i>	Ozark Big-eared Bat <sup>3</sup>	Endangered	Endangered
<i>Lepus californicus</i>	Black-tailed Jackrabbit	Endangered	
<i>Myotis grisescens</i>	Gray Bat	Endangered	Endangered
<i>Myotis septentrionalis</i>	Northern Long-eared Myotis		Threatened
<i>Myotis sodalis</i>	Indiana Bat	Endangered	Endangered
<i>Spilogale putorius interrupta</i>	Plains Spotted Skunk	Endangered	

<sup>1</sup> Listed in the Wildlife Code of Missouri, Rule 3 CSR10-4.111 Endangered Species.

<sup>2</sup> Federally Listed Species under the Endangered Species Act (ESA) of 1973 as Amended:

Endangered = Any species that is in danger of extinction throughout all or a significant portion of its range.

Threatened = Any species that is likely to become endangered within the foreseeable future.

Candidate = Plants or animals that the U.S. Fish & Wildlife Service is reviewing for possible addition to the list of Endangered and Threatened species.

Proposed = Any species proposed for listing as Threatened or Endangered by the U.S. Fish & Wildlife Service.

Threatened/SA = Any species listed Threatened due to Similarity of Appearance by the U.S. Fish & Wildlife Service.

<sup>3</sup> Considered extirpated, historical or accidental occurrence in Missouri.

## SPECIES AND STATUSES

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>LICHENS</b>					
Cladonia cervicornis ssp. verticillata	A Lichen	S?	G5TNR		
Cladonia leporina	A Lichen	S2	G4G5		
Coenogonium missouriense	Missouri Cave Lichen	SH	GH		
Collema nigrescens	A Lichen	SU	G5?		
Dendroscopula intricatum	A Lichen	S?	GUQ		
Dermatocarpon moulinsii	A Lichen	S1	GNR		
Dibaeis absoluta	A Lichen	S1	G4		
Flavoparmelia rutidota	A Lichen	S?	G4G5		
Graphina sophisticascens	A Lichen	SH	GNR		
Imshaugia aleurites	A Lichen	S?	G5		
Lecidea lurida	A Lichen	SU	GNR		
Pannaria rubiginosa	A Lichen	S1	G4G5		
Parmelia squarrosa	A Lichen	S?	G5		
Parmelina horrescens	A Lichen	S1	G5		
Parmotrema hypoleucinum	A Lichen	S1	G4G5		
Parmotrema madagascariaceum	A Lichen	S?	G3G5		
Parmotrema tinctorum	A Lichen	S2	G5?		
Pseudocyphellaria aurata	A Lichen	S1	G3G5		
Psora icterica	A Lichen	S1	G5?		
Pycnothelia papillaria	A Lichen	S1	G3G5		
Ramalina intermedia	A Lichen	S1	G4G5		
Rimelia subisidiosa	A Lichen	S1	G4G5		
Tuckermannopsis ciliaris	A Lichen	S?	G3G5		
Usnea angulata	A Lichen	S1	G3G5		
Xanthoparmelia australasica	A Lichen	S1	G5		
<b>Total Lichen Records: 25</b>					
<b>LIVERWORTS AND HORNWORTS</b>					
Aneura maxima	A Liverwort	S1	G4?		
Anthoceros agrestis	A Hornwort	S2	G4G5		
Bazzania trilobata var. depauperata	A Liverwort	S1	G5TUQ		
Bazzania trilobata var. trilobata	A Liverwort	S1	G5TUQ		
Calypogeia muelleriana ssp. muelleriana	A Liverwort	SU	G5T5		
Calypogeia sullivantii	A Leafy Liverwort	S1	G4		
Frullania kunzei	A Liverwort	S1	G4		
Fuscocephaloziopsis catenulata	A Liverwort	S2	G5		
Fuscocephaloziopsis connivens	A Liverwort	S1	G5		
Jungermannia leiantha	A Liverwort	S1	G5		
Kurzia setacea	A Liverwort	S1	G4G5		
Kurzia sylvatica	A Liverwort	S1	G5		
Leucolejeunea unciloba	A Liverwort	S1	G4G5		
Marchantia polymorpha ssp. polymorpha	A Liverwort	S1	GNR		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>LIVERWORTS AND HORNWORTS (Cont.)</b>					
Marsupella sullivantii	A Liverwort	S2	G5		
Metzgeria conjugata	A Liverwort	S1	G5		
Metzgeria furcata	A Liverwort	S2	G5		
Nardia lescurii	A Liverwort	S1	G3?		
Notothylas orbicularis	A Hornwort	S1	G5		
Nowellia curvifolia	A Liverwort	S2	G5		
Odontoschisma denudatum	A Liverwort	S1	G5		
Oxymitra incrassata	A Liverwort	S1	GNR		
Phaeoceros oreganus	A Hornwort	S1	GNRQ		
Plagiochasma wrightii	A Liverwort	SH	G3?		
Ptilidium pulcherrimum	A Liverwort	S1	G5		
Radula australis	A Liverwort	SR	G3G4		
Rectolejeunea maxonii	A Liverwort	S1	G4		
Riccardia multifida	A Liverwort	S1	G5		
Riccardia palmata	A Liverwort	S1	G5		
Riccia austini	A Liverwort	S2	G5		
Riccia bifurca	A Liverwort	SU	G5		
Riccia cavernosa	A Liverwort	S1	G5		
Riccia crystallina	A Liverwort	SU	G4G5		
Riccia frostii	A Liverwort	S1	G5		
Riccia hirta	A Liverwort	S2	G5		
Riccia macallisteri	A Liverwort	S1	G2G4		
Riccia nigrella	A Liverwort	SU	G4G5		
Riccia ozarkiana	A Liverwort	SH	G1G2		
Riccia sorocarpa	A Liverwort	S1	G5		
Riccia sullivantii	A Liverwort	S?	G4Q		
Schistochilopsis incisa	A Liverwort	S1	G5		

**Total Liverwort and Hornwort Records: 41**

#### **MOSSES**

Acaulon muticum var. muticum	A Moss	S1	G4G5TNR		
Anacamptodon splachnoides	Knothole Moss	S1	G3G5		
Anomobryum julaceum	A Moss	S1	G4G5		
Archidium alternifolium	A Moss	S1	G4G5		
Atrichum crispulum	A Moss	S2	GNR		
Atrichum crispum	A Moss	S1	G4?		
Atrichum cylindricum	A Moss	S1	G5		
Brachelyma subulatum	A Moss	S1	G4G5		
Brachythecium campestre	A Moss	S1	G4G5Q		
Brachythecium salebrosum var. salebrosum	A Moss	SU	G5TNR		
Bruchia texana	A Moss	SU	G3G5		
Bryhnia novae-angliae	A Moss	S1	G5		
Bryoxiphium norvegicum	Sword Moss	S1	G5?		
Calliergonella cuspidata	A Moss	S1	G5		
Campylium protensum	A Moss	S2	G5T3T5		
Campylopodiella stenocarpa	A Moss	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>MOSSES (Cont.)</b>					
Campylopus tallulensis	A Moss	S2	G4		
Codriophorus aciculare	A Moss	S1	G5		
Dichelyma capillaceum	A Moss	S1	G5		
Dicranella rufescens	A Moss	S1	G5?		
Dicranum polysetum	A Moss	S1	G5		
Didymodon revolutus	A Moss	S1	G4		
Didymodon rigidulus var. rigidulus	A Moss	S1	G5T4?		
Ditrichum rhynchostegium	A Moss	S1	G3G5		
Drepanocladus aduncus	A Moss	SU	G5		
Drepanocladus polygamus	A Moss	S1	G5		
Encalypta procera	Extinguisher Moss	S1	G4G5		
Entodon brevisetus	A Moss	S1	G4?		
Ephemerum crassinervium var. texanum	A Moss	SU	G4T3?		
Ephemerum serratum	A Moss	S1	G4		
Fissidens exilis	Small Pocket Moss	S2	G3G4		
Forsstroemia producta	A Moss	S1	G5?		
Gemmabryum klinggraeffii	A Moss	S1	G4G5		
Gemmabryum ruderales	A Moss	S2	G3G5		
Gemmabryum subapiculatum	A Moss	SX	G5?		
Grimmia olneyi	A Moss	S2	G3G5		
Grimmia plagiopodia	A Moss	S1	G4G5		
Gymnostomum calcareum	A Moss	SU	G5?		
Herzogiella striatella	A Moss	SU	G4G5		
Homaliadelphus sharpii	Sharp's Homaliadelphus	S1	G3?		
Hypnum cupressiforme var. filiforme	A Moss	S1	G5TNR		
Hypnum lindbergii	Lindberg's Hypnum Moss	SU	G5		
Hypnum pallescens	A Moss	S1	G5		
Hypnum pratense	A Moss	S1	G5		
Imbriobryum miniatum	A Moss	S1	G4G5		
Isopterygiopsis muelleriana	A Moss	S1	G5		
Jaffuelobryum rauyi	A Moss	S2	G4?		
Jaffuelobryum wrightii	A Moss	S1	G4G5		
Leskea polycarpa	A Moss	SU	G4G5		
Micromitrium megalosporum	A Moss	S1S2	G4		
Micromitrium synoicum	A Moss	SU	G4		
Micromitrium tenerum	A Moss	S1	G4G5		
Mnium hornum	A Moss	S1	G5		
Mnium thomsonii	A Moss	S?	G5		
Myurella sibirica	A Moss	S2	G4?		
Neckera bessi	A Moss	S1	G4G5		
Orthotrichum anomalum	A Moss	S?	G4G5		
Orthotrichum diaphanum	A Moss	S2	G5		
Orthotrichum elegans	A Moss	S1	G5		
Orthotrichum lescurei	A Moss	S1	GNR		
Physcomitrium collenchymatum	A Moss	S1	G2G4		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>MOSSES (Cont.)</b>					
Physcomitrium hookeri	A Moss	SU	G2G4		
Plagiomnium medium	A Moss	SU	G5		
Plagiothecium denticulatum	A Moss	S1	G5		
Platylomella lescurii	A Moss	S2	G5		
Pleuridium acuminatum	A Moss	S2	G3G5		
Pleuridium sullivantii	A Moss	S1	G3G5		
Pohlia annotina	A Moss	S2	G4G5		
Polytrichastrum formosum var. densifolium	A Moss	S1	G5TNR		
Pseudocampylium radicale	A Moss	S1	G3G5		
Pseudotaxiphyllum distichaceum	A Moss	S1	G4G5		
Ptychomitrium serratum	A Moss	S1	G4?		
Ptychomitrium sinense	A Moss	S1	G4G5		
Ptychostomum cernuum	A Moss	S1	G3G5		
Ptychostomum cyclophyllum	A Moss	S?	G4G5		
Ptychostomum pallescens	A Moss	SU	G5		
Ptychostomum pendulum	A Moss	S1	G4G5		
Pylaisia intricata	A Moss	SU	G4		
Pylaisiadelphina tenuirostris	A Moss	S2	G5?		
Pyramidula tetragona	A Moss	S1	G3G5		
Rhabdoweisia crispata	A Moss	S1	G5		
Rhytidium rugosum	Golden Glade-moss	S1	G5		
Rosulabryum flaccidum	A Moss	S2	GNR		
Schistidium liliputanum	A Moss	S1	GNR		
Seligeria calcarea	A Moss	S?	G4?		
Seligeria donniana	A Moss	S1	G4G5		
Seligeria pusilla	A Moss	S1	G3G5		
Sematophyllum marylandicum	A Moss	S1	G5		
Sphagnum affine	Sphagnum	S1	G5		
Sphagnum angustifolium	Narrowleaf Peatmoss	S1	G5		
Sphagnum bartlettianum	Sphagnum	S1	G4G5		
Sphagnum capillifolium	Northern Peatmoss	S2	G5		
Sphagnum cuspidatum	Sphagnum	S1	G5		
Sphagnum fallax	Sphagnum	S1	G5		
Sphagnum fimbriatum var. fimbriatum	Sphagnum	S1	G5TNR		
Sphagnum henryense	Sphagnum	S1	G4?		
Sphagnum inundatum	Sphagnum	S1	G4		
Sphagnum magellanicum	Magellan's Peatmoss	S1	G5		
Sphagnum platyphyllum	Sphagnum	SU	G5		
Sphagnum recurvum	Sphagnum	S1	G5		
Sphagnum russowii	Sphagnum	S1	G5		
Sphagnum subtile	Sphagnum	S2	G5?Q		
Sphagnum trinitense	Sphagnum	S1	G4		
Syntrichia papillosa	A Moss	S2	G5		
Syrrhopodon texanus	A Moss	S2	G5		
Thamnobryum alleghaniense	A Moss	S1	G5?		
Tortella fragilis	Fragmented Screw-moss	SU	G5		

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<b>MOSESSES (Cont.)</b>					
<i>Tortella tortuosa</i>	Twisted Moss	SU	G5		
<i>Trematodon longicollis</i>	A Moss	S2	G5		
<i>Trichostomum tenuirostre</i> var. <i>gemmiparum</i>	A Moss	S1	G4TNR		
<i>Ulotia hutchinsiae</i>	Hutchins' Ulotia Moss	S1	G5		
<i>Weissia phascopsis</i>	A Pygmy Moss	S1	G3G4		
<i>Zygodon apiculatus</i>	A Moss	S1	GU		
<b>Total Moss Records: 113</b>					
<b>FERNS AND FERN ALLIES</b>					
<i>Asplenium bradleyi</i>	Bradley's Spleenwort	SU	G4		
<i>Asplenium montanum</i>	Mountain Spleenwort	SH	G5		
<i>Asplenium pinnatifidum</i>	Lobed Spleenwort	SU	G4		
<i>Asplenium trichomanes</i> ssp. <i>trichomanes</i>	Maidenhair Spleenwort	SU	G5T5		
<i>Azolla caroliniana</i>	Eastern Mosquito Fern	S1S3	G5		
<i>Botrychium biternatum</i>	Few-lobed Grape Fern	S1	G5		
<i>Cheilanthes alabamensis</i>	Alabama Lip-fern	S1	G4G5		
<i>Cheilanthes tomentosa</i>	Woolly Lip-fern	S1	G5		
<i>Cystopteris tenuis</i>	A Bladderfern	S1	G5		
<i>Dennstaedtia punctilobula</i>	Hay-scented Fern	S2	G5		
<i>Dryopteris carthusiana</i>	Spinulose Shield Fern	S2	G5		
<i>Dryopteris celsa</i>	Log Fern	S1	G4		
<i>Dryopteris cristata</i>	Crested Fern	S1	G5		
<i>Dryopteris goldiana</i>	Goldie's Fern	S2	G4G5		
<i>Dryopteris intermedia</i>	Evergreen Woodfern	S1	G5		
<i>Huperzia porophila</i>	Fir Clubmoss	S2	G4		
<i>Isoetes engelmannii</i> var. <i>engelmannii</i>	Engelmann's Quillwort	S1?	G4TNR		
<i>Lycopodium dendroideum</i>	Round-branched Ground Pine	S1	G5		
<i>Lycopodium tristachyum</i>	Ground Cedar	S1	G5		
<i>Matteuccia struthiopteris</i> var. <i>pennsylvanica</i>	Ostrich Fern	S2	G5T5		
<i>Ophioglossum crotalophoroides</i>	Bulbous Adder's-tongue	SH	G5		
<i>Ophioglossum petiolatum</i>	Stalked Adder's-tongue	SX	G5		
<i>Pellaea glabella</i> var. <i>missouriensis</i>	Missouri Cliffbrake	S1S2	G5T1T2		
<i>Pilularia americana</i>	American Pillwort	SU	G5		
<i>Pteridium aquilinum</i> var. <i>pseudocaudatum</i>	Bracken	SU	G5T5		
<i>Woodsia obtusa</i> ssp. <i>occidentalis</i>	Blunt-lobed Woodsia	S1	G5T3T4		
<i>Woodwardia areolata</i>	Netted Chain Fern	S2	G5		
<b>Total Ferns and Fern Allies Records: 27</b>					



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<b>FLOWERING PLANTS</b>					
Acalypha deamii	Large Seeded Mercury	S1	G4?		
Aconitum uncinatum	Southern Monkshood	S1	G4		
Agalinis auriculata	Auriculate False Foxglove	S3	G3		
Agalinis heterophylla	Prairie False Foxglove	S1	G4G5		
Agalinis purpurea	Purple False Foxglove	S2	G5		
Agalinis viridis	Green False Foxglove	S1	G4?		
Agastache scrophulariifolia	Purple Giant-hyssop	S1	G4		
Agrimonia gryposepala	Tall Agrimony	SU	G5		
Allium burdickii	Wild Leek	S2	G4G5		
Alopecurus aequalis	Floating Foxtail Grass	S2	G5		
Amorpha nitens	Shining False Indigo	S1	G3?		
Amsonia ciliata var. filifolia	Ciliate Blue Star	S2S3	G5?T4?		
Anemone cylindrica	Thimbleweed	S2	G5		
Anemone quinquefolia var. quinquefolia	Wood Anemone	S1	G5T5		
Aralia nudicaulis	Wild Sarsaparilla	S2	G5		
Aristida adscensionis	Sixweeks Three-awn	SH	G5		
Aristida desmantha	Curly Three-awn	S2	G5		
Aristida lanosa	Woollyleaf Three-awn	S1	G5		
Aristida ramosissima	Slender Three-awn	SH	G5		
Aronia melanocarpa	Black Chokeberry	S1	G5		
Artemisia dracunculus	A Wormwood	SH	G5		
Asclepias exaltata	Poke Milkweed	S1	G5		
Asclepias meadii	Mead's Milkweed	S2	G2	E	T
Asclepias speciosa	Showy Milkweed	SA	G5		
Astragalus lotiflorus	Low Milk Vetch	S2	G5		
Astranthium ciliatum	Western Daisy	S2	G5T5		
Baptisia sphaerocarpa	Round-fruited Yellow Wild Indigo	SU	G4G5		
Bartonia paniculata ssp. paniculata	Screwstem	S1	G5T5		
Bartonia virginica	Yellow Bartonia	S1	G5		
Berberis canadensis	American Barberry	S1	G3		
Bergia texana	Bergia	S2	G5		
Berula erecta var. incisa	Cut-leaved Water-parsnip	S1	G4G5T4T5		
Bidens beckii	Water Marigold	SU	G4G5		
Bidens laevis	A Beggar's Tick	S1	G5		
Bolboschoenus maritimus ssp. paludosus	Bayonet Grass	S1	G5T5		
Boltonia decurrens	Decurrent False Aster	S1	G2	E	T
Bouteloua gracilis	Blue Grama	S1	G5		
Bouteloua hirsuta var. hirsuta	Hairy Grama	S2	G5T5		
Bromus latiglumis	A Brome	S3	G5		
Buchloe dactyloides	Buffalo Grass	SH	G4G5		
Calamagrostis porteri ssp. insperata	Oferhollow Reed Grass	S3	G4T3		
Calamagrostis stricta ssp. inexpansa	Northern Reedgrass	S2S3	G5T5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Calamovilfa longifolia var. longifolia	Long-leaved Reed Grass	SH	G5T5		
Callicarpa americana	French Mulberry	S1	G5		
Callirhoe bushii	Bush's Poppy Mallow	S2	G3		
Callirhoe triangulata	Clustered Poppy Mallow	SH	G3		
Callitriche palustris	Vernal Water Starwort	SU	G5		
Calopogon oklahomensis	Grass Pink Orchid	S2	G3		
Calopogon tuberosus	Grass Pink Orchid	S2	G5		
Caltha palustris	Marsh Marigold	S1	G5		
Campanula aparinoides var. aparinoides	Marsh Bellflower	S1	G5TNR		
Campanula rotundifolia	Harebell	S1	G5		
Carex abscondita	A Sedge	S1	G4G5		
Carex alata	Broadwing Sedge	S2S3	G5		
Carex albicans var. australis	Bellow Beaked Sedge	S1	G5T5		
Carex albulutescens	Greenish-white Sedge	S1S2	G5		
Carex aquatilis var. substricta	A Sedge	S1	G5TNR		
Carex atherodes	Awned Sedge	S1	G5		
Carex atlantica ssp. atlantica	A Sedge	S1	G5T4		
Carex atlantica ssp. capillacea	Prickly Bog Sedge	S1	G5T5?		
Carex bromoides ssp. bromoides	A Sedge	S2	G5T5		
Carex buxbaumii	Brown Bog Sedge	S2	G5		
Carex communis var. communis	Fibrous-root Sedge	S2	G5T5		
Carex comosa	Bristly Sedge	S2	G5		
Carex conoidea	Field Sedge	S1	G5		
Carex cumberlandensis	A Sedge	S1	GNR		
Carex debilis var. debilis	White-edge Sedge	S1	G5T5		
Carex decomposita	Epiphytic Sedge	S3	G3G4		
Carex echinodes	A Sedge	SH	G5TNR		
Carex fissa var. fissa	A Sedge	S1	G4?T3T4		
Carex flaccosperma	A Sedge	S2	G5		
Carex gigantea	Giant Sedge	S1S2	G4		
Carex gracillima	Graceful Sedge	S1	G5		
Carex inops ssp. heliophila	Sun Sedge	SU	G5T5		
Carex jorii	Cypress-swamp Sedge	SH	G4G5		
Carex lacustris	Lake-bank Sedge	S2	G5		
Carex laxiculmis var. copulata	A Sedge	SU	G5T3T5		
Carex laxiculmis var. laxiculmis	A Sedge	SU	G5T4T5		
Carex laxiflora var. laxiflora	A Carex	S1	G5T5		
Carex longii	Greenish-white Sedge	S1	G5		
Carex microdonta	A Sedge	S1	G4		
Carex molestiformis	A Sedge	S2	G4		
Carex oxylepis	Sharp-scale Sedge	S2	G5?		
Carex prasina	Drooping Sedge	S1	G4		
Carex reniformis	Reniform Sedge	S1	G4?		
Carex reznicekii	A Sedge	S2?	G5		
Carex sartwellii	Sartwell's Sedge	S1	G4G5		
Carex scabrata	Rough Sedge	SH	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Carex socialis	A Sedge	S2	G4		
Carex sprengelii	Longbeak Sedge	S1	G5		
Carex sterilis	A Sedge	S2	G4		
Carex straminea	Straw Sedge	S1	G5		
Carex sychnocephala	A Sedge	S1	G4		
Carex tetanica	Rigid Sedge	S3	G4G5		
Carex tonsa var. rugosperma	Shaved Sedge	S1	G5T5		
Carex tonsa var. tonsa	Shaved Sedge	SH	G5T5		
Carex triangularis	Triangular Sedge	S2	G5		
Carex trichocarpa	Hairy-fruited Sedge	S1	G4		
Carex vesicaria var. monile	A Sedge	S2?	G5T4		
Carex willdenowii	Willdenow's Sedge	S1	G5		
Carex woodii	A Sedge	S1	G4		
Carya pallida	Sand Hickory	S2S3	G5		
Castanea pumila var. ozarkensis	Ozark Chinquapin	S2	G5T3		
Castanea pumila var. pumila	Chinquapin	SU	G5T5?		
Castilleja purpurea var. purpurea	Purple Paintbrush	SH	G5T4?		
Castilleja sessiliflora	Downy Painted Cup	S2	G5		
Cayaponia quinqueloba	A Gourd	S1	G4		
Centaurea americana	American basket flower	SH	G5		
Centrosema virginianum	Coastal Butterfly-pea	SH	G5		
Ceratophyllum echinatum	Coontail	S1?	G4?		
Chaetopappa asteroides var. asteroides	Common Leastdaisy	S2S3	G5T3T5		
Chasmanthium laxum ssp. laxum	Slender Spike Grass	S1	G5T5		
Chasmanthium laxum ssp. sessiliflorum	A Spike Grass	SX	G5T5		
Chelone obliqua	Rose Turtlehead	S2	G4		
Chenopodium berlandieri var. boscianum	Pitseed Goosefoot	SU	G5T3T5		
Chenopodium strictum var. glaucophyllum	A Goosefoot	SH	G5TU		
Cicuta maculata var. bolanderi	Common Water Hemlock	SU	G5T3T4		
Cirsium hillii	Hill's Thistle	SU	G3		
Cirsium undulatum	Wavy-leaved Thistle	S1	G5		
Cissus trifoliata	Marine Vine	S2	G5		
Cladium jamaicense	Jamaica Swamp Sawgrass	S1	G5T5		
Clematis fremontii	Fremont's Leather Flower	S3	G5		
Clematis viorna	A Leatherflower	S1	G5		
Cleome serrulata	Rocky Mountain Bee Plant	SH	G5		
Coeloglossum viride var. virescens	Long-bracted Orchid	S1	G5T5		
Coelorachis cylindrica	Joint Grass	S1	G4G5		
Conyza canadensis var. pusilla	Fleabane	S1S2	G5T5		
Corispermum americanum	American Bugseed	SU	G5?		
Corispermum pallasii	A Bugseed	SH	G4?		
Corispermum villosum	Oriental Tick-seed	SU	G4?		
Corydalis aurea ssp. aurea	Golden Corydalis	SU	G5T5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Corydalis micrantha ssp. australis	A Corydalis	S2	G5T5?		
Crataegus berberifolia var. berberifolia	Barberry-leaved Hawthorn	SU	GNR		
Crataegus collina var. lettermanii	Hillside Hawthorn	SU	GNR		
Crataegus collina var. sordida	Hillside Hawthorn	SU	GNR		
Crataegus fecunda	St. Clair Hawthorn	SU	G3?Q		
Crataegus lanuginosa	Woolly Hawthorn	SU	G3?Q		
Crataegus macrosperma	Eastern Hawthorn	SU	G5		
Crataegus margarettae var. brownii	Margaret's Hawthorn	SU	GNR		
Crataegus marshallii	Parsley Haw	S1	G5		
Crataegus pruinosa var. magnifolia	Frosty Hawthorn	SU	GNR		
Crataegus schuettei	Royal Hawthorn	SU	G5?		
Crataegus spathulata	A Hawthorn	S1	G5		
Crataegus spes-aestatum	Summers Hawthorn	SU	GNR		
Crataegus succulenta var. succulenta	Succulent Hawthorn	SU	G4G5TNR		
Crataegus texana var. dasyphylla	Texas Red Hawthorn	SU	GNR		
Crataegus transmississippiensis	A Hawthorn	SU	GNR		
Crataegus viridis var. nitens	Green Hawthorn	SU	GNR		
Croton michauxii	Narrowleaf Rushfoil	S1	G5		
Cuscuta obtusiflora var. glandulosa	Peruvian Dodder	SU	G5T4T5		
Cyclachaena xanthiifolia	A Marsh Elder	S1	G5		
Cynoscium digitatum	Finger Dog-shade	S2	G4G5		
Cyperus compressus	Coco Grass	S1	G5		
Cyperus croceus	Baldwin's Cyperus	S1	G5		
Cyperus diandrus	Umbrella Flatsedge	S1	G5		
Cyperus flavicomus	An Umbrella Sedge	S1	G5		
Cyperus hystrix	Flatsedge	S1	G4		
Cyperus plukenetii	Plukenet's Cyperus	S1	G5		
Cyperus retroflexus	Umbrella Sedge	S1	G5		
Cyperus retrofractus	Teasel-like Cyperus	S1S2	G5		
Cyperus retrorsus	An umbrella sedge	SH	G5		
Cyperus schweinitzii	Schweinitz's Flatsedge	S3	G5		
Cyperus setigerus	Bristled Cyperus	S1	G3G5		
Cypripedium candidum	Small White Lady-slipper	S1	G4		
Cypripedium reginae	Showy Lady-slipper	S2S3	G4		
Dalea enneandra	Nine-anther Dalea	S2	G5		
Dalea gattereri	Gatterer Prairie-clover	S1	G3G4		
Dalea multiflora	Round-headed Prairie Clover	SH	G5		
Dalea villosa var. villosa	Silky Prairie Clover	SU	G5T5		
Decodon verticillatus	Swamp Loosestrife	S1	G5		
Delphinium exaltatum	Tall Larkspur	S2	G3		
Descurainia pinnata ssp. pinnata	Tansy Mustard	S2S3	G5T5		
Desmodium ochroleucum	Creamflower Tick Trefoil	SH	G1G2		
Desmodium strictum	Pineland Tick Trefoil	S1	G4		

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<b>FLOWERING PLANTS (Cont.)</b>					
Desmodium viridiflorum	Velvety Tick Trefoil	S1	G5?		
Diarrhena americana	American Beakgrass	S1	G4G5		
Dichondra carolinensis	Pony-foot Grass	S1	G5		
Dirca decipiens	Leatherwood	SU	G1G2		
Distichlis spicata var. spicata	Seashore Salt Grass	S1	G5TNR		
Doellingeria umbellata var. pubens	Flat-topped White Aster	S1	G5T5		
Echinacea angustifolia	Narrow-leaved Coneflower	SH	G4		
Echinochloa walteri	A Barnyard Grass	S1	G5		
Elatine triandra var. americana	Waterwort	SH	G4		
Elatine triandra var. triandra	Waterwort	SH	G5		
Eleocharis atropurpurea	A Spike Rush	S1	G4G5		
Eleocharis equisetoides	Horsetail Spike Rush	SH	G4		
Eleocharis lanceolata	Lance-like Spike Rush	S2	G4G5		
Eleocharis parvula	Small Spike Rush	SU	G5		
Elodea canadensis	Broad Waterweed	SU	G5		
Elymus churchii	Church's Wildrye	S1	G2G3		
Elymus glaucus	Blue Wild Rye	SU	G5		
Epifagus virginiana	Beech Drops	S2	G5		
Epilobium leptophyllum	Willow Herb	S1	G5		
Eragrostis glomerata	A Love Grass	S1	G3G5		
Eragrostis reptans	Creeping Love Grass	SH	G5		
Erianthus giganteus	Plume Grass	S1	G5		
Erianthus strictus	Narrow Plumegrass	SH	G5		
Eriogonum longifolium var. longifolium	Umbrella Plant	S2	G4T4		
Erysimum capitatum var. capitatum	Western Wallflower	S3?	G5T5		
Euonymus americanus	Strawberry Bush	S2	G5		
Eupatorium album	White Thoroughwort	SU	G5		
Eupatorium maculatum var. bruneri	Spotted Joe-pye Weed	S1	G5T4T5Q		
Eupatorium rotundifolium var. scabridum	A Thoroughwort	S1?	G5T3T5		
Eupatorium semiserratum	A Thoroughwort	S1S2	G5		
Euphorbia geyeri var. geyeri	Geyer's Spurge	S1	G5T5		
Euphorbia ouachitana	A Spurge	SU	GNR		
Eurybia furcata	Forked Aster	S2	G3		
Eurybia macrophylla	Big-leaved Aster	S2	G5		
Festuca sororia	A Fescue	SH	G4		
Filipendula rubra	Queen of the Prairie	S2	G4G5		
Fimbristylis littoralis var. littoralis	A Fimbristylis	S1?	G3G5TNR		
Fimbristylis perpusilla	Harper's Fimbry	SH	G2		
Floerkea proserpinacoides	False Mermaid	SU	G5		
Fragaria vesca	Woodland Strawberry	S1	G5		
Fraxinus biltmoreana	Biltmore Ash	SU	G5		
Fuirena simplex var. aristulata	An Umbrella Grass	S2?	G5T4		

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<b>FLOWERING PLANTS (Cont.)</b>					
Gaillardia aestivalis var. flavovirens	A Blanket Flower	SH	G5T3T5		
Galium asprellum	Rough Bedstraw	SU	G5		
Galium boreale	Northern Bedstraw	S2	G5		
Gaylussacia baccata	Black Huckleberry	S1	G5		
Gentiana andrewsii var. andrewsii	Closed Gentian	S1	G5?T5?		
Geocarpon minimum	Geocarpon	S2	G2	E	T
Geum fragarioides	Barren Strawberry	S2	G5T5		
Geum virginianum	Pale Avens	S1	G5		
Gillenia trifoliata	Indian Physic	SH	G4G5		
Glyceria acutiflora	Sharp-scaled Manna Grass	S3	G5		
Glyceria septentrionalis var. arkansana	Eastern Manna Grass	SU	G5		
Glycyrrhiza lepidota var. lepidota	Wild Licorice	S1	G5TNRQ		
Gratiola viscidula	Hedge Hyssop	S1	G4G5		
Grindelia ciliata	A Goldenweed	S1	G4G5		
Helianthemum tenellum	Dwarf Burhead	S1	G5?		
Helenium virginicum	Virginia Sneezeweed	S3	G3	E	T
Helianthemum canadense	A Rockrose	SU	G5		
Helianthus angustifolius	Swamp Sunflower	S2	G5		
Helianthus decapetalus	Thin-leaved Sunflower	SU	G5		
Heliotropium curassavicum var. curassavicum	Seaside Heliotrope	S1	G5T5		
Heteranthera reniformis	Mud Plantain	SU	G5		
Heterotheca canescens	Hoary Golden Aster	SH	G5?		
Heuchera parviflora var. parviflora	Little Leaved Alum Root	S1	G4T4		
Hottonia inflata	Featherfoil	S2	G4		
Houstonia rosea	Rose Bluets	SU	G5		
Hydrocotyle ranunculoides	Floating Pennywort	S1S2	G5		
Hydrocotyle verticillata	Water Pennywort	S1	G5		
Hydrolea ovata	Ovate Fiddleleaf	S2	G5		
Hypericum adpressum	Creeping St. John's-wort	S1	G3		
Hypericum ascyron ssp. pyramidatum	Great St. John's-wort	S1	G4		
Hypericum lobocarpum	A St. John's Wort	S1	G4Q		
Hypericum majus	Greater St. John's-wort	SH	G5		
Ilex verticillata var. padifolia	Winterberry	S3	G5TNR		
Isolepis molesta	Gulf Coast Bulrush	SH	G4?		
Isotria medeoloides	Small Whorled Pogonia	SH	G2	E	T
Isotria verticillata	Large Whorled Pogonia	S1S2	G5		
Juncus alpinoarticulatus	Richardson Rush	SH	G5		
Juncus balticus var. littoralis	Baltic Rush	S1	G5T5		
Juncus brachyphyllus	Small-headed Rush	S1	G5		
Juncus bufonius var. bufonius	Toad Rush	S1	G5T5		
Juncus canadensis var. canadensis	Canada Rush	S1	G5T5		
Juncus debilis	Weak Rush	S1	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Juncus filipendulus	Ringseed Rush	SU	G5		
Juncus nodosus	Knotted Rush	SH	G5		
Juncus validus	A Rush	S1	G5		
Justicia ovata var. lanceolata	A Water Willow	S2	G5T4T5		
Lactuca hirsuta	Hairy Lettuce	SU	G5?		
Lactuca ludoviciana	Western Lettuce	SH	G4G5		
Lactuca tatarica ssp. pulchella	Blue Lettuce	S1	G5T5		
Lathyrus pusillus	A Wild Pea	SH	G5?		
Lathyrus venosus	Bushy Vetchling	SU	G5		
Leavenworthia torulosa	Necklace Goldcress	SU	G4		
Lechea racemulosa	Illinois Pinweed	SH	G5		
Leitneria floridana	Corkwood	S2	G3		
Lemna obscura	A Duckweed	SU	G5		
Lemna trisulca	Star Duckweed	S2	G5		
Lemna turionifera	A Duckweed	SH	G5		
Liatris punctata var. punctata	A Blazing Star	S3	G5T5		
Liatris scariosa var. nieuwlandii	A Blazing Star	S2	G5?T3T5		
Liatris spicata	Button Snakeroot	SX	G5		
Lilium philadelphicum var. andinum	Wood Lily	S1	G5T4T5		
Lilium superbum	Turk's Cap Lily	S1	G5		
Limnobia spongiosa ssp. spongiosa	American Frogbit	S2	G4		
Limnoscium pinnatum	Pinnate Dogshade	S1	G5?		
Limosella aquatica	Mudwort	SH	G5		
Lindera melissifolia	Pondberry	S1	G2G3	E	E
Linum floridanum var. floridanum	Florida Yellow Flax	SU	G5?T5?		
Liparis loeselii	Loesel's Twayblade	S2	G5		
Lipocarpa aristulata	Lipocarpa	SH	G5?		
Lipocarpa drummondii	A Lipocarpa	S1	G4G5		
Lippia nodiflora	Fog Fruit	SH	G5		
Listera australis	Southern Twayblade	S1	G4		
Lithospermum latifolium	American Gromwell	S2	G4		
Lobelia puberula	Downy Lobelia	SH	G5		
Lomatium foeniculaceum ssp. foeniculaceum	Hairy Parsley	S1S3	G5T5		
Ludwigia leptocarpa	Primrose Willow	S2	G5		
Ludwigia linearis	Narrow-leaved Primrose	SU	G5		
Ludwigia microcarpa	A False Loosestrife	S2	G5		
Ludwigia repens	A False Loosestrife	SU	G5		
Lycopus asper	Bugle Weed	SH	G5		
Lycopus uniflorus	Northern Bugleweed	S2?	G5		
Lygodesmia juncea	Skeleton Plant	S3	G5		
Lyonia mariana	Stagger Bush	SH	G5		
Lysimachia terrestris	Swamp Candle	S1	G5		
Lysimachia thysiflora	Tufted Loosestrife	S1	G5		
Maianthemum stellatum	Starry False Solomon's Seal	SU	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Malus angustifolia</i>	Narrow-leaved Wild Crab	S2	G5?		
<i>Malvastrum angustum</i>	Yellow False Mallow	S3	G3G5		
<i>Marshallia caespitosa</i> var. <i>caespitosa</i>	Barbara's Buttons	S3	G4T4		
<i>Marshallia caespitosa</i> var. <i>signata</i>	Barbara's Buttons	S1	G4T4		
<i>Mecardonia acuminata</i>	Water Hyssop	S1	G5		
<i>Medeola virginiana</i>	Indian Cucumber-root	SH	G5		
<i>Melica mutica</i>	Two-flowered Melic Grass	S1	G5		
<i>Melothria pendula</i>	Creeping Cucumber	S3	G5?		
<i>Menyanthes trifoliata</i>	Bogbean	S1	G5		
<i>Mimulus glabratus</i> var. <i>jamesii</i>	Roundleaf Monkey Flower	SH	G5T5		
<i>Minuartia muscorum</i>	Dixie Stitchwort	S1	GNR		
<i>Mirabilis linearis</i> var. <i>linearis</i>	Narrow-leaved Four-o'clock	SU	GNR		
<i>Mitreola petiolata</i>	Miterwort	S1	G5		
<i>Moehringia lateriflora</i>	Grove Sandwort	S2S3	G5		
<i>Monarda clinopodia</i>	A Horsemint	S1	G5		
<i>Monarda punctata</i> var. <i>arkansana</i>	Arkansas Bee Balm	SA	G5TNR		
<i>Monarda punctata</i> var. <i>occidentalis</i>	Dotted Monarda	SA	G5T4T5		
<i>Monarda punctata</i> var. <i>villicaulis</i>	Horsemint	S3	G5T5?		
<i>Muhlenbergia asperifolia</i>	Scratchgrass	S1	G5		
<i>Muhlenbergia cuspidata</i>	Plains Muhly	SU	G4		
<i>Muhlenbergia glabrifloris</i>	Inland Muhly	SU	G4?		
<i>Najas flexilis</i>	A Naiad	SH	G5		
<i>Najas gracillima</i>	Thread-like Naiad	S2	G5?		
<i>Nemastylis geminiflora</i>	Prairie Iris	S2	G4		
<i>Neviusia alabamensis</i>	Snow Wreath	SH	G2		
<i>Nothocalais cuspidata</i>	Prairie Dandelion	S2	G5		
<i>Nyssa biflora</i>	Swamp Black Gum	SH	G5		
<i>Obolaria virginica</i>	Virginia Pennywort	S2	G5		
<i>Oenothera clelandii</i>	Evening Primrose	S2	G3G5		
<i>Oenothera fruticosa</i> ssp. <i>fruticosa</i>	Shrubby Sundrops	S1	G5T5		
<i>Oenothera fruticosa</i> ssp. <i>glauca</i>	Shrubby Sundrops	SH	G5T5		
<i>Oenothera glaucifolia</i>	Stenosiphon	S2	G5		
<i>Oenothera grandis</i>	Cut-leaved Evening Primrose	SU	G5?		
<i>Oenothera nutans</i>	Nodding Evening Primrose	S1S2	G4		
<i>Oenothera parviflora</i>	Northern Evening Primrose	SU	G4?		
<i>Oenothera perennis</i>	Small Sundrops	S1	G5		
<i>Oenothera rhombipetala</i>	An Evening Primrose	SH	G4G5		
<i>Oenothera suffrutescens</i>	Scarlet Gaura	S1	GNR		
<i>Oenothera triloba</i>	Stemless Evening Primrose	S2	G4		
<i>Oldenlandia boscii</i>	A Bluet	S1	G5		
<i>Oldenlandia uniflora</i>	Clustered Bluets	S1	G5		
<i>Opuntia macrorhiza</i> var. <i>macrorhiza</i>	Low Prickly Pear	S2	G5T5		
<i>Opuntia polyacantha</i> var. <i>polyacantha</i>	Starvation Cactus	SX	G5T5		



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<b>FLOWERING PLANTS (Cont.)</b>					
Orobanche ludoviciana	A Broomrape	S1	G5		
Orobanche riparia	A Broomrape	S1	G4?		
Oryzopsis racemosa	Black-seeded Mountain Rice	S1	G5		
Oxytropis lambertii var. lambertii	Locoweed	S2	G5TNR		
Packera tomentosa	Hairy Groundsel	SH	G4G5		
Panicum dichotomum var. mattamuskeetense	A Panic Grass	SH	G4T4?		
Panicum dichotomum var. nitidum	A Panic Grass	S1	G5TNR		
Panicum dichotomum var. yadkinense	A Panic Grass	SH	G5T4Q		
Panicum leibergii	A Panic Grass	SU	G5		
Panicum longifolium	Panicgrass	SU	G5		
Panicum portoricense	A Panic Grass	S1?	G5TNR		
Panicum verrucosum	Warty Panicgrass	S1	G4		
Paronychia virginica	Virginia Whitlow Wort	S1	G4		
Paspalum bifidum	Pitchfork Paspalum	S1	G5		
Paspalum dissectum	Mudbank Paspalum	SH	G4?		
Paspalum setaceum var. setaceum	Slender Paspalum	S1	G5T5		
Pediomelum argophyllum	Silvery Psoralea	S2	G5		
Peltandra virginica ssp. virginica	Arrow Arum	S2	G5T5		
Penstemon cobaea	A Beard-tongue	S1	G4		
Penstemon grandiflorus	Large Beard-tongue	S1	G5?		
Penstemon tenuis	Gulf Coast Beard-tongue	SU	G4		
Perideridia americana	Eastern Eulophus	S2	G4		
Persicaria amphibia var. stipulacea	Water Smartweed	S1	G5T5		
Persicaria arifolia	Halberd-leaved Tear Thumb	S1	G5		
Persicaria bicornis	Pink Smartweed	SU	GNR		
Persicaria glabra	Dense-flower Smartweed	S1S2	G5		
Persicaria robustior	Dotted Smartweed	SH	G4G5		
Phacelia covillei	Coville's Phacelia	S1	G3		
Philadelphus pubescens var. verrucosus	Mock Orange	S1	G5?TU		
Phlox amplifolia	Large-leaved Phlox	S3?	G3G5		
Phlox bifida	Bifid Phlox	S1	G5?		
Phlox maculata ssp. pyramidalis	Wild Sweet William	S2	G5T4T5		
Phyllanthus polygonoides	Knotweed Leaf-flower	S1	G5		
Physalis grisea	Strawberry-tomato	SU	G5?		
Physalis missouriensis	Missouri Groundcherry	SU	G5?		
Physaria filiformis	Missouri Bladderpod	S3	G3	E	T
Physostegia intermedia	A False Dragonhead	S1	G5		
Plantago heterophylla	Slender Plantain	SU	G5		
Plantago patagonica	Woolly Plantain	S2	G5		
Platanthera ciliaris	Yellow-fringed Orchid	S1	G5		
Platanthera clavellata	Green Wood Orchid	S2	G5		

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Platanthera flava var. flava	Pale Green Orchid	S2	G4?T4?Q		
Platanthera flava var. herbiola	Northern Rein Orchid	S2	G4?T4Q		
Platanthera leucophaea	Eastern Prairie Fringed Orchid	S1	G2G3	E	T
Platanthera praeclara	Western Prairie Fringed Orchid	S1	G3	E	T
Platanthera psycodes	Small Purple-fringed Orchid	SX	G5		
Pluchea foetida var. foetida	March Fleabane	SH	G5T5		
Poa interior	Inland Bluegrass	S1	G5		
Pogonia ophioglossoides	Snake-mouth Orchid	S1	G5		
Polygonum americanum	Jointweed	S2	GNR		
Polymnia laevigata	Smooth Leaf-cup	SX	G3		
Populus grandidentata	Big-toothed Aspen	S1	G5		
Populus tremuloides	Quaking Aspen	S2	G5		
Portulaca pilosa	Kiss Me Quick	SU	G5		
Potamogeton epihydrus	Nuttall Pondweed	SH	G5		
Potamogeton pulcher	Spotted Pondweed	S2S3	G5		
Potamogeton pusillus var. pusillus	Slender Pondweed	S3	G5T5		
Potentilla supina ssp. paradoxa	Bushy Cinquefoil	S1	G5		
Prenanthes racemosa	Rattlesnake Root	SH	G5		
Primula fassettii	Amethyst Shooting Star	S2	GNR		
Primula frenchii	French's Shooting Star	S1	GNR		
Proserpinaca palustris var. palustris	Mermaid Weed	SU	G5T5		
Pseudognaphalium helleri	Heller's Cudweed	SU	G4G5		
Pseudognaphalium micradenium	Rabbit Tobacco	SU	G4G5T3?		
Ptilimnium capillaceum	Mock Bishop's Weed	SH	G5		
Pycnanthemum muticum	Blunt Mountain Mint	S2	G5		
Pycnanthemum torrei	Torrey Mountain Mint	SH	G2		
Quercus ellipsoidalis	Northern Pin Oak	S1	G5		
Quercus margarettiae	Sand Post Oak	SRF	G5		
Quercus nigra	Water Oak	S2	G5		
Quercus prinoides	Dwarf Chinquapin Oak	S3?	G5		
Quercus texana	Nuttall's Oak	S2	G4G5		
Ranunculus cymbalaria	Seaside Crowfoot	SH	G5		
Rhynchosia difformis	Double-formed Snoutbean	S1	G5?		
Rhynchospora harveyi	Harvey's Beak-rush	S1	G4		
Rhynchospora macrostachya var. macrostachya	Horned Rush	S1	G4T4Q		
Rhynchospora scirpoides	Longbeak Beaksedge	SU	G4		
Ribes americanum	Gooseberry	S1	G5		
Rorippa aquatica	Lake Cress	S2	G4?		
Rosa blanda	Smooth Rose	S1	G5		
Rubus plicatifolius	A Blackberry	SU	G5		
Rubus rosa	Rose Blackberry	SU	G5		
Rubus satis	Ithaca Blackberry	SU	G4G5Q		

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<b>FLOWERING PLANTS (Cont.)</b>					
Rudbeckia amplexicaulis	Clasping Leaved Coneflower	S?	G5		
Rudbeckia grandiflora var. grandiflora	Rough Coneflower	S1	G5T4?		
Ruppia maritima	Ditch Grass	S1	G5		
Sabatia brachiata	Marsh Pink	S1	G5?		
Sacciolepis striata	American Cupscale	S1	G5		
Sagina procumbens	Matted Pearlwort	SU	G5		
Sagittaria ambigua	Kansas Arrowhead	S1	G2?		
Sagittaria platyphylla	Ovate-leaved Arrowhead	S1	G5		
Salix discolor	Pussy Willow	S1	G5		
Salix famelica	Diamond Willow	SU	G5TNR		
Salix petiolaris	Meadow Willow	S1	G5		
Sambucus pubens	Red-berried Elderberry	S1	G4G5Q		
Sanicula smallii	Black Snakeroot	SH	G5		
Sapindus saponaria var. drummondii	Soapberry	S2	G5T5		
Schoenoplectus americanus	Olney's Bulrush	SH	G5		
Schoenoplectus californicus	Giant Bulrush	S1	G5		
Schoenoplectus deltarum	Delta Bulrush	SH	G3G4		
Schoenoplectus etuberculatus	Canby's Bulrush	S1	G3G4		
Schoenoplectus hallii	Hall's Bulrush	S2	G2G3		
Schoenoplectus heterochaetus	Giant Bulrush	SU	G5		
Schoenoplectus purshianus	Weakstalk Bulrush	S1	G4G5		
Schoenoplectus saximontanus	A Bulrush	S1	G5		
Schoenoplectus subterminalis	Swaying Rush	S1	G4G5		
Schoenoplectus torreyi	Torrey's Bulrush	SH	G5?		
Scirpus divaricatus	A Bulrush	SH	G5		
Scirpus pallidus	Pale Bulrush	S2	G5		
Scirpus pedicellatus	A Bulrush	SU	G4		
Scleria reticularis var. pubescens	Muhlenberg's Nut-rush	S1	G5		
Scrophularia lanceolata	Early Figwort	SH	G5		
Scutellaria elliptica var. hirsuta	Hairy Skullcap	SH	G5T5		
Scutellaria galericulata	Marsh Skullcap	S1	G5		
Sida elliotii	Elliott Sida	S1	G4G5		
Sisyrinchium atlanticum	Eastern Blue-eyed Grass	S2	G5		
Smilax illinoensis	Carion Flower	S2S3	G4?		
Solanum elaeagnifolium	White Horse Nettle	SU	G4G5		
Solidago riddellii	Riddell's Goldenrod	S3	G5		
Solidago rigida ssp. humilis	Stiff Goldenrod	SU	G5T5		
Spermolepis diffusa	Rough-fruit Spermolepis	S1	GNR		
Sphenopholis pensylvanica	Swamp Oats	SH	G4		
Spiraea alba var. alba	Meadow-sweet	S1	G5T5		
Spiraea tomentosa	Hardhack	S1	G5		
Spiranthes praecox	Greenvein Ladies' Tresses	S1	G5		
Sporobolus airoides	Alkali Sacaton	SH	G5		
Stachys aspera	Hedge Nettle	SH	G4?		
Steinchisma hians	Gaping Panic Grass	S3	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
Stylisma pickeringii var. pattersonii	A Stylisma	S1	G4T4		
Styrax grandifolius	Bigleaf Snowbell	SU	G5		
Sullivantia sullivantii	Sullivantia	S2	G4		
Symphoricarpos occidentalis	Wolfberry	S1	G5		
Symphyotrichum ciliatum	Rayless Alkali Aster	SH	G5		
Symphyotrichum patens var. gracile	Spreading Aster	SU	G5T4T5		
Symphyotrichum racemosum var. subdumosum	Small White Aster	S2	G4G5T3T5Q		
Symphyotrichum subulatum var. ligulatum	Saltmarsh Aster	S2	G5		
Thalia dealbata	Water Canna	S2	G4		
Thelesperma filifolium	Thelesperma	S2	G4G5		
Tilia americana var. heterophylla	White Basswood	SU	G5T5		
Tipularia discolor	Crane-fly Orchid	S2	G4G5		
Torreyochloa pallida var. pallida	Pale Manna Grass	S1	G5T5?		
Tradescantia ozarkana	Ozark Spiderwort	S2	G3		
Tragia cordata	Heart-leaved Noseburn	S2	G4		
Trautvetteria caroliniensis	False Bugbane	S2	G5		
Trepocarpus aethusae	Trepocarpus	S1	G4G5		
Triadenum tubulosum	Marsh St. John's Wort	S1	G4?		
Trichostema setaceum	Blue Curls	S1	G5		
Tridens flavus var. chapmanii	A Grass	S2	G5T3		
Tridens muticus var. elongatus	Slim Tridens	SH	G5T4?		
Trifolium carolinianum	Carolina Clover	S1	G5		
Trifolium stoloniferum	Running Buffalo Clover	S1	G3	E	E
Trillium nivale	Snow Trillium	S3	G4		
Trillium pusillum var. ozarkanum	Ozark Wake Robin	S2	G3T3		
Triodanis holzingeri	A Venus' Looking Glass	SH	G4		
Triodanis lamprosperma	A Venus' Looking Glass	S2	G5?		
Turritis glabra	Tower Mustard	S1	G5		
Typha domingensis	Southern Cattail	S1	G4G5		
Ulmus crassifolia	Cedar Elm	S1	G5		
Ulmus thomasii	Rock Elm	S2	G5		
Urtica chamaedryoides	Weak Nettle	S1	G4G5		
Utricularia minor	Lesser Bladderwort	S1	G5		
Utricularia subulata	Slender Bladderwort	S1	G5		
Valerianella ozarkana	Ozark Corn Salad	S2	G3		
Veronica americana	American Brooklime	SH	G5		
Viburnum bracteatum	Ozark Arrow Wood	S1S2	G1G2		
Viburnum dentatum	Southern Arrow-wood	S1	G5		
Viburnum lentago	Nannyberry	S1	G5		
Viburnum recognitum	Northern Arrow-wood	S1	G4G5		
Vicia ludoviciana ssp. leavenworthii	Louisiana Vetch	SH	G5T5		
Vicia minutiflora	Pygmy-flowered Vetch	SH	G5		
Viola affinis	Sand Violet	S1	G5		

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<b>FLOWERING PLANTS (Cont.)</b>					
<i>Viola pallens</i>	Smooth White Violet	S2	G5T5		
<i>Vitis rotundifolia</i> var. <i>rotundifolia</i>	Muscadine	S1	G5T5		
<i>Wolffia borealis</i>	Dotted Watermeal	SU	G5		
<i>Wolffia columbiana</i>	Columbia Water-meal	SU	G5		
<i>Wolffiella gladiata</i>	Wolffiella	S1	G5		
<i>Xyris jupicai</i>	Yellow-eyed-grass	S1	G5		
<i>Xyris torta</i>	Yellow-eyed Grass	S1	G5		
<i>Yucca arkansana</i>	Arkansas Yucca	S2	G5		
<i>Yucca glauca</i>	Small Soapweed Yucca	S2	G5		
<i>Zannichellia palustris</i> var. <i>major</i>	Horned Pondweed	S3?	G5TNR		
<i>Zigadenus elegans</i> ssp. <i>glaucus</i>	White Camas	S2	G5T4T5		
<i>Zigadenus nuttallii</i>	Death Camas	S1	G5		
<i>Zizania palustris</i> var. <i>interior</i>	Interior Wild Rice	SH	G4G5T4T5		
<b>Total Flowering Plant Records: 529</b>					

#### **FLATWORMS**

<i>Macrocotyla glandulosa</i>	Pink Planarian	S1	G2G3		
<i>Macrocotyla lewisi</i>	Lewis' Cave Planarian	S1	G1		
<i>Sphalloplana evaginata</i>	Perryville Cave Planarian	S1	G1G2		
<i>Sphalloplana hubrichti</i>	Hubricht's Cave Planarian	S1	G2G4		

**Total Flatworm Records: 4**

#### **MOLLUSKS**

<i>Alasmidonta marginata</i>	Elktoe	S2	G4		
<i>Alasmidonta viridis</i>	Slippershell Mussel	S1	G4G5		
<i>Amnicola stygius</i>	Stygian Amnicola	S1	G1		
<i>Anodonta suborbiculata</i>	Flat Floater	S2	G5		
<i>Anodontoides ferussacianus</i>	Cylindrical Papershell	S1	G5		
<i>Antrobia culveri</i>	Tumbling Creek Cavesnail	S1	G1	E	E
<i>Arcidens confragosus</i>	Rock Pocketbook	S3	G4		
<i>Campeoloma crassulum</i>	Ponderous Campeoloma	SU	G5		
<i>Cumberlandia monodonta</i>	Spectaclecase	S3	G3		E
<i>Cyprogenia aberti</i>	Western Fanshell	S2	G2G3Q		
<i>Discus nigrimontanus</i>	Black Mountain Disc	S3	G4		
<i>Elliptio crassidens</i>	Elephantear	S1	G5	E	
<i>Epioblasma florentina curtisii</i>	Curtis Pearlymussel	S1	G1T1	E	E
<i>Epioblasma triquetra</i>	Snuffbox	S1	G3	E	E
<i>Fontigens aldrichi</i>	Hoosier Springsnail	S4	G4		
<i>Fontigens antroecetes</i>	Missouri Cavesnail	S2	G2		
<i>Fontigens proserpina</i>	Proserpine Cavesnail	S1	G1		
<i>Fusconaia ebena</i>	Ebonyshell	S1	G4G5	E	
<i>Gastrocopta cristata</i>	Crested Snaggleteeth	S1	G5		
<i>Gastrocopta pellucida</i>	Slim Snaggleteeth	S1	G5		
<i>Hendersonia occulta</i>	Cherrytone Snail	S3	G4		
<i>Lampsilis abrupta</i>	Pink Mucket	S2	G2	E	E

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<b>MOLLUSKS (Cont.)</b>					
Lampsilis brittsi	Northern Brokenray	S3	G4T3		
Lampsilis higginsii	Higgins Eye	S1	G1G2	E	E
Lampsilis rafinesqueana	Neosho Mucket	S2	G2		E
Leptodea leptodon	Scaleshell	S1	G1G2	E	E
Leptoxis arkansensis	Arkansas Mudalia	S1	G1		
Ligumia recta	Black Sandshell	S2	G4G5		
Lioplax sulculosa	Furrowed Lioplax	S1	G5		
Marstonia ozarkensis	Ozark Pyrg	SH	G1		
Marstonia scalariformis	Moss Pyrg	S1	G1		
Mesodon mitchellianus	Sealed Goblet	S1	G4		
Micromenetus sampsoni	Sampson Sprite	S2	G2G3Q		
Millerelix deltoidea	Oklahoma Liptooh	SU	G2		
Neohelix divesta	Ozark Whitelip	S3	G3G4		
Obovaria jacksoniana	Southern Hickorynut	S1	G2		
Obovaria olivaria	Hickorynut	S3	G4		
Patera perigrapta	Engraved Bladetooth	S2	G5		
Plectomerus dombeyanus	Bankclimber	S3	G5		
Plethobasus cyphus	Sheepnose	S2	G3	E	E
Pleurocera alveare	Rugged Hornsnail	S1S3	G3		
Potamilus capax	Fat Pocketbook	S1	G2	E	E
Ptychobranchus occidentalis	Ouachita Kidneyshell	S3	G3G4		
Quadrula cylindrica cylindrica	Rabbitsfoot	S1	G3G4T3		T
Quadrula fragosa	Winged Mapleleaf	S1	G1	E	E
Quadrula nodulata	Wartyback	S3	G4		
Simpsonaias ambigua	Salamander Mussel	S1	G3		
Somatogyrys depressus	Sandbar Pebblesnail	S2	G2		
Somatogyrys rosewateri	Elk Pebblesnail	S1	G1		
Stagnicola elodes	Marsh Pondsnaill	S2	G5		
Stenotrema stenotrema	Inland Slitmouth	S3	G5		
Strobellops affinis	Eightfold Pinecone	S2	G4		
Toxolasma lividum	Purple Lilliput	S1	G3Q		
Toxolasma texasense	Texas Lilliput	S3	G4		
Triodopsis cragini	Post Oak Threetooth	SH	G4		
Ventridens demissus	Perforate Dome	SU	G5		
Vertigo oscariana	Capital Vertigo	S1	G4		
Villosa lienosa	Little Spectaclecase	S3	G5		
Zonitoides limatulus	Dull Gloss	S1	G4G5		
<b>Total Mollusk Records: 59</b>					
<b>ARACHNIDS</b>					
Apochthonius mysterius	Mystery Cave Pseudoscorpion	S1	G1G2		
Apochthonius typhlus	Stone County Cave Pseudoscorpion	S1	G1G2		
Hesperochernes occidentalis	Guano Pseudoscorpion	S3	G5		
Mundochthonius cavernicolus	Cavernicolous Pseudoscorpion	SU	G1G2		
Phanetta subterranea	Subterranean Cave Spider	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>ARACHNIDS (Cont.)</b>					
Porrhomma cavernicola	Cavernicolous Porrhomma Spider	S2	G5		
<b>Total Arachnid Records: 6</b>					
<b>CRUSTACEANS</b>					
Allocrangonyx hubrichti	Hubricht's Long-tailed Amphipod	S3	G2G3		
Bactrurus brachycaudus	Short-tailed Groundwater Amphipod	S4	G4		
Bactrurus hubrichti	Sword-tail Cave Amphipod	S1	G4		
Bactrurus pseudomucronatus	False Sword-tailed Cave Amphipod	S2	G2G3		
Brackenridgia ashleyi	Ashley's Isopod	S2	G1G3		
Caecidotea antricola	A Cave Obligate Isopod	S4	G5		
Caecidotea dimorpha	An Isopod	S1S3	G2G3		
Caecidotea fustis	Fustis Cave Isopod	S2	G2G3		
Caecidotea salemensis	Salem Cave Isopod	S2	G4		
Caecidotea serrata	Serrated Cave Isopod	S1	G1G2		
Caecidotea stiladactyla	Slender-fingered Cave Isopod	S1	G3G4		
Caecidotea stygia	Stygian Cave Isopod	S1	G5		
Cambarellus puer	Cajun Dwarf Crayfish	S3?	G5		
Cambarellus shufeldtii	Shufeldt's Dwarf Crayfish	S3?	G5		
Cambarus aculabrum	Cave Crayfish	SP	G1		E
Cambarus hubrichti	Salem Cave Crayfish	S3	G4		
Cambarus ludovicianus	Painted Devil Crayfish	SU	G5		
Cambarus maculatus	Freckled Crayfish	S3	G4		
Cambarus polychromatus	Paintedhand Mudbug	S1S2	G5		
Cambarus setosus	Bristly Cave Crayfish	S3	G3		
Diacyclops yeatmani	Yeatman's Groundwater Copepod	S1S3	G2G3		
Fallicambarus fodiens	Digger Crayfish	S2S3	G5		
Faxonella clypeata	Shield Crayfish	S2S3	G5		
Lirceus megapodus	An Isopod	SU	GNR		
Macrobrachium ohione	Ohio Shrimp	S1	G4		
Orconectes eupunctus	Coldwater Crayfish	S1	G2		
Orconectes harrisonii	Belted Crayfish	S3	G3		
Orconectes lancifer	Shrimp Crayfish	S1S2	G5		
Orconectes marchandi	Mammoth Spring Crayfish	S1S2	G2		
Orconectes meeki meeki	Meek's Crayfish	S1	G4T4		
Orconectes peruncus	Big Creek Crayfish	S2	G2		
Orconectes quadruncus	St. Francis River Crayfish	S2	G2		
Orconectes stygocaneyi	Caney Mountain Cave Crayfish	S1	G1		
Orconectes williamsi	Williams' Crayfish	S2	G3		
Procambarus viaeviridis	Vernal Crayfish	S3?	G5		
Stygobromus barri	Barr's Groundwater Amphipod	S1S3	G2G3		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>CRUSTACEANS (Cont.)</b>					
Stygobromus clantoni	Clanton's Groundwater Amphipod	S1S3	G4		
Stygobromus heteropodus	Pickle Springs Amphipod	SX	G1G2		
Stygobromus onondagaensis	Onondaga Cave Amphipod	S3?	G3		
Stygobromus ozarkensis	Ozark Cave Amphipod	S3?	G4		
Stygobromus subtilis	Subtle Groundwater Amphipod	S1S3	G2		
Triops longicaudatus	Longtail Tadpole Shrimp	SU	G5		
<b>Total Crustacean Records: 42</b>					
<b>MILLIPEDES</b>					
Causeyella dendropus	Causeyella Cave Millipede	S2	G1G3		
Chaetaspis aleyorum	Aleys' Cave Millipede	S1	G1		
Tingupa pallida	Tingupa Cave Millipede	S4	G4		
Zosteractis interminata	Zosteractis Cave Millipede	SU	G2G3		
<b>Total Millipede Records: 4</b>					
<b>INSECTS</b>					
Acroneuria ozarkensis	Ozark Stone	S2	G2		
Agapetus artesus	Artesian Agapetus Caddisfly	S3	G3		
Aleochara speculicollis	A Staphylinid Beetle	SU	GNR		
Allocapnia pygmaea	Pygmy Snowfly	S3	G5		
Alloperla hamata	Barbed Sallfly	S3	G4		
Alloperla leonarda	Truncate Sallfly	S3	G4		
Amblyscirtes linda	Linda's Roadside Skipper	S2S3	G2G3		
Amblytropidia mysteca	A Glade Grasshopper	SU	G5		
Amphiagrion saucium	Eastern Red Damsel	S2	G5		
Andrena beameri	An Andrenid Bee	S3	GNR		
Argia alberta	Paiute Dancer	S1	G4		
Arigomphus maxwelli	Bayou Clubtail	SU	G5		
Arrhopalites clarus	Clarus Cave Springtail	S3	G4		
Attaneuria ruralis	Giant Stone	S3	G4		
Baetisca obesa	A Mayfly	S3	G5		
Beameria venosa	A Concealed-tymbal Cicada	S3	GNR		
Biblopectus chickasaw	A Staphylinid Beetle	SU	GNR		
Bombus affinis	Rusty Belt Bumblebee	SU	G1		
Bombus fervidus	Yellow Bumblebee	S1	G4?		
Calephelis borealis	Northern Metalmark	S1	G3G4		
Calephelis muticum	Swamp Metalmark	S3	G3		
Catocala marmorata	Marbled Underwing Moth	S3	G3G4		
Catocala pretiosa texarkana	Precious Underwing Moth	S3?	G4T4		
Ceratopsyche piatrix	A Net-spinning Caddisfly	S4	G4		
Chalybion zimmermanni	A Blue Mud Dauber	SU	GNRTNR		
Conocephalus saltans	Prairie Meadow Katydid	S3	GNR		
Cylindera celeripes	Swift Tiger Beetle	S1	G2G4		



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<b>INSECTS (Cont.)</b>					
Deinopsis virginiana	A Staphylinid Beetle	SU	GNR		
Derops divalis	A Staphylinid Beetle	S3	GNR		
Dichagyris reliqua	A Noctuid Moth	S1	G2G3		
Dromochrous pruinina	Loamy-ground Tiger Beetle	S1	G3G4		
Euphyes dukesi	Duke's Skipper	S1	G3		
Formica creightoni	Creighton's Slavemaking Ant	S3	GNR		
Formica fossiceps	Haystack Thatching Ant	S1	GNR		
Formica querquetulana	Oak-grove Ant	S1	GNR		
Gennadota canadensis	A Staphylinid Beetle	SU	GNR		
Glyphopsyche missouri	Missouri Glyphopsyche Caddisfly	S1	G1		
Gomphus fraternus	Midland Clubtail	SU	G5		
Gomphus ventricosus	Skillet Clubtail	SU	G3		
Gryllotalpa major	Prairie Mole Cricket	S3	G3		
Habroscelimorpha circumpicta johnsonii	Saline Spring Tiger Beetle	S1	G5T5		
Hesperia ottoe	Ottoe Skipper	S1	G3G4		
Hesperus stehri	A Staphylinid Beetle	SU	GNR		
Hydroperla fugitans	Austin Springfly	S3	G3		
Inscudderia taxodii	Bald Cypress Katydid	S1	GNR		
Isoperla burksi	Banded Stripetail	S3	G4		
Isoperla longiseta	Plains Stripetail	SX	G5		
Lasia purpurata	Purple Small-headed Fly	SU	GNR		
Leptysmia marginicollis	Cattail Toothpick Grasshopper	S2S3	G5		
Leucotrichia pictipes	A Micro Caddisfly	S3	G5		
Libellula auripennis	Golden-winged Skimmer	SU	G5		
Lordithon niger	A Staphylinid Beetle	S3	GU		
Lytrosis permagnaria	Geometrid Moth	SU	G3G4		
Melanoplus fasciatus	Huckleberry Grasshopper	S3	G5		
Melanoplus impudicus	Immodest Grasshopper	S3	G4G5		
Melanoplus packardii	Packard's Grasshopper	S2	G5		
Melanoplus punctulatus griseus	Grizzly Grasshopper	SU	G4T4		
Melanoplus viridipes viridipes	Green-legged Grasshopper	S3	G4		
Melissodes intorta	A Callirhoe Bee	S1	GNR		
Mermiria picta	Mermiria Grasshopper	S3	G5		
Merope tuber	A Meropid Scorpionfly	S3	G3G5		
Metaleptea brevicornis	Short-horned Grasshopper	S4	G5		
Nehalennia gracilis	Sphagnum Sprite	S1?	G5		
Nehalennia irene	Sedge Sprite	S1	G5		
Neoconocephalus exiliscanorus	Slightly-musical Conehead Katydid	S3	GNR		
Neoconocephalus lyristes	Bog Conehead Katydid	S1	GNR		
Neoperla carlsoni	Spiny Stone	S3?	G4		
Neotrichia kitae	Kite's Neotrichian Caddisfly	SU	GU		
Neotridactylus apicalis	Larger Pygmy Grasshopper	SU	GNR		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>INSECTS (Cont.)</b>					
Nicrophorus americanus	American Burying Beetle	SH	G2G3	E	E
Ochrotrichia contorta	Contorted Ochrotrichian	SU	G1G2		
	Micro Caddisfly				
Oecleus chrisjohni	A Cixiid Planthopper	SU	GNR		
Oncopodura hoffi	Hoff's Cave Springtail	S1S3	G1G2		
Oxybleptes kiteleyi	A Staphylinid Beetle	SU	GNR		
Papilio joanae	Ozark Woodland Swallowtail	SU	G3		
Pardalophora saussurei	A Glade Grasshopper	SU	G5		
Paroxya hoosieri	Hoosier Grasshopper	S1	G5		
Pentacora signoreti	A Shore Bug	S1	GNR		
Phoetaliotes nebrascensis	Large-headed Grasshopper	S3	G5		
Phrixocnemis truculentus	Truculent Camel Cricket	SU	GNR		
Phyllobrotica lengi	A Leaf Beetle	SU	GNR		
Phyllobrotica nigratarsis	A Leaf Beetle	SU	GNR		
Phyllobrotica physostegiae	A Leaf Beetle	S4?	GNR		
Polyergus longicornis	Long-horned Shining Amazon Ant	S1	GNR		
Polyergus montivagus	Foothills Shining Amazon Ant	S1	GNR		
Polyergus ruber	Ruby-red Shining Amazon Ant	S1	GNR		
Polyergus sanwaldi	Sanwald's Shining Amazon Ant	S1	GNR		
Prostoia similis	Longhorn Forestfly	S3	G5		
Pseudomasaris occidentalis	A Pollen Wasp	S3	GNR		
Pseudosinella espana	Espana Cave Springtail	S3	G2G3		
Psinidia fenestralis	Sand Grasshopper	S2S3	G5		
Satyrodes appalachia leeuwi	Appalachian Eyed Brown	S1	G4T4		
Sepedophilus campbelli	A Staphylinid Beetle	SU	GNR		
Serratella frisoni	Frison's Seratellan Mayfly	S2	G4		
Sinella avita	Avita Cave Springtail	SU	G3G4		
Sinella barri	Barr's Cave Springtail	SU	G5		
Somatochlora hineana	Hine's Emerald	S2	G2G3	E	E
Somatochlora ozarkensis	Ozark Emerald	SU	G3		
Somatochlora provocans	Treetop Emerald	S1	G4		
Speyeria diana	Diana Fritillary	SA	G3G4		
Speyeria idalia	Regal Fritillary	S3	G3		
Stenonema bednariki	A Heptageniid Mayfly	S3	G2G4		
Stethophyma celatum	Sedge Grasshopper	S3	G4		
Stylurus intricatus	Brimstone Clubtail	S1S2	G4		
Stylurus notatus	Elusive Clubtail	S2S3	G3		
Telebasis byersi	Duckweed Firetail	S1	G5		
Telebasis salva	Desert Firetail	SU	G5		
Tettigidea armata	Spined Grouse Locust	S2S3	G5		
Tomocerus missus	Missus Cave Springtail	SU	G4		
Trimerotropis maritima	Seaside Grasshopper	SH	G5		
Xenochalepus potomaca	A Leaf Beetle	SU	GNR		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>INSECTS (Cont.)</b>					
Xenotrechus condei	Northern Xenotrechus Cave Beetle	S1	G1G2		
Xenotrechus denticollis	Southern Xenotrechus Cave Beetle	S1	G1G2		
Xylodromus capito	A Staphylinid Beetle	SU	GNR		
<b>Total Insect Records: 114</b>					
<b>FISH</b>					
Acipenser fulvescens	Lake Sturgeon	S1	G3G4	E	
Alosa alabamae	Alabama Shad	S2	G2G3		
Alosa chrysochloris	Skipjack Herring	SU	G5		
Amblyopsis rosae	Ozark Cavefish	S2	G3	E	T
Ameiurus nebulosus	Brown Bullhead	S3?	G5		
Ammocrypta clara	Western Sand Darter	S2S3	G3		
Ammocrypta vivax	Scaly Sand Darter	S3	G5		
Anguilla rostrata	American Eel	SU	G4		
Atractosteus spatula	Alligator Gar	S1	G3G4		
Carpionodes velifer	Highfin Carpsucker	S2	G4G5		
Centrarchus macropterus	Flier	S3	G5		
Cottus specus	Grotto Sculpin	S1	G2		E
Crystallaria asprella	Crystal Darter	S1	G3	E	
Cyprinella camura	Bluntnose Shiner	S2S3	G5		
Erimyzon sucetta	Lake Chubsucker	S2	G5		
Etheostoma cragini	Arkansas Darter	S3S4	G3G4		C
Etheostoma euzonum erizonum	Current Saddled Darter	S3	G3G4T3T4		
Etheostoma euzonum euzonum	Arkansas Saddled Darter	S2	G3G4T3T4		
Etheostoma fusiforme	Swamp Darter	S1	G5	E	
Etheostoma histrio	Harlequin Darter	S2	G5	E	
Etheostoma microperca	Least Darter	S2	G5		
Etheostoma nianguae	Niangua Darter	S2	G2	E	T
Etheostoma parvipinne	Goldstripe Darter	S1	G4G5	E	
Etheostoma whipplei	Redfin Darter	S1	G4	E	
Forbesichthys agassizii	Spring Cavefish	S1	G4	E	
Fundulus chrysotus	Golden Topminnow	S1	G5		
Fundulus dispar	Starhead Topminnow	S2	G4		
Fundulus kansae	Northern Plains Killifish	S2	G5		
Fundulus sciadicus	Plains Topminnow	S3	G4		
Hybognathus argyritis	Western Silvery Minnow	S2	G4		
Hybognathus hankinsoni	Brassy Minnow	S3	G5		
Hybognathus hayi	Cypress Minnow	S1	G4G5	E	
Hybognathus nuchalis	Mississippi Silvery Minnow	S3S4	G5		
Hybognathus placitus	Plains Minnow	S2	G4		
Hybopsis amnis	Pallid Shiner	SX	G4		
Ichthyomyzon gagei	Southern Brook Lamprey	S2S3	G5		
Lepomis marginatus	Dollar Sunfish	S2	G5		
Lepomis symmetricus	Bantam Sunfish	S2	G5		
Lethenteron appendix	American Brook Lamprey	S2	G4		

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<b>FISH (Cont.)</b>					
Macrhybopsis gelida	Sturgeon Chub	S3	G3		
Mugil cephalus	Striped Mullet	SA	G5		
Notropis buchanani	Ghost Shiner	S2	G5		
Notropis chalybaeus	Ironcolor Shiner	S1	G4		
Notropis heterolepis	Blacknose Shiner	S2	G4		
Notropis maculatus	Taillight Shiner	S1	G5	E	
Notropis ozarcanus	Ozark Shiner	S2	G3		
Notropis sabiniae	Sabine Shiner	S1	G4	E	
Notropis texanus	Weed Shiner	S3	G5		
Notropis topeka	Topeka Shiner	S1	G3	E	E
Noturus eleutherus	Mountain Madtom	S1S2	G4	E	
Noturus flavater	Checkered Madtom	S3S4	G3G4		
Noturus placidus	Neosho Madtom	S1	G2	E	T
Opsopoeodus emiliae	Pugnose Minnow	S4	G5		
Percina copelandi	Channel Darter	S3	G4		
Percina cymatotaenia	Bluestripe Darter	S2	G2		
Percina nasuta	Longnose Darter	S1	G3	E	
Percina shumardi	River Darter	S3	G5		
Percina uranidea	Stargazing Darter	S2	G3		
Percopsis omiscomaycus	Trout-perch	S1?	G5		
Pimephales tenellus parviceps	Eastern Slim Minnow	S2S3	G4T2T3		
Pimephales tenellus tenellus	Western Slim Minnow	S3	G4T4		
Platygobio gracilis	Flathead Chub	S1	G5	E	
Scaphirhynchus albus	Pallid Sturgeon	S1	G2	E	E
Typhlichthys subterraneus	Southern Cavefish	S2S3	G4		
Umbra limi	Central Mudminnow	S1	G5	E	

**Total Fish Records: 65**

#### **AMPHIBIANS**

Ambystoma annulatum	Ringed Salamander	S3	G4		
Ambystoma talpoideum	Mole Salamander	S2	G5		
Ambystoma tigrinum	Eastern Tiger Salamander	S3	G5		
Amphiuma tridactylum	Three-toed Amphiuma	S2	G5		
Anaxyrus cognatus	Great Plains Toad	S3	G5		
Cryptobranchus alleganiensis	Eastern Hellbender	S1	G3G4T3T4	E	
Cryptobranchus alleganiensis bishopi	Ozark Hellbender	S1	G3G4T2Q	E	E
Eurycea spelaea	Grotto Salamander	S2S3	G4		
Hemidactylium scutatum	Four-toed Salamander	S4	G5		
Lithobates areolatus circulosus	Northern Crawfish Frog	S3	G4T4		
Lithobates pipiens	Northern Leopard Frog	S2	G5		
Lithobates sylvaticus	Wood Frog	S3	G5		
Pseudacris illinoensis	Illinois Chorus Frog	S2	G3		
Scaphiopus holbrookii	Eastern Spadefoot	S2	G5		

**Total Amphibian Records: 14**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>REPTILES</b>					
Cemophora coccinea copei	Northern Scarletsnake	S2S3	G5T5		
Clonophis kirtlandii	Kirtland's Snake	S1	G2		
Crotaphytus collaris	Eastern Collared Lizard	S4	G5		
Deirochelys reticularia miaria	Western Chicken Turtle	S1	G5T5	E	
Emydoidea blandingii	Blanding's Turtle	S1	G4	E	
Farancia abacura reinwardtii	Western Mudsake	S2	G5T5		
Heterodon gloydi	Dusty Hog-nosed Snake	S1	G5T3T4Q		
Heterodon nasicus	Plains Hog-nosed Snake	SX	G5		
Kinosternon flavescens	Yellow Mud Turtle	S1	G5	E	
Macrochelys temminckii	Alligator Snapping Turtle	S2	G3G4		
Nerodia cyclopion	Mississippi Green Watersnake	SX	G5	E	
Ophedrys vernalis	Smooth Greensnake	SX	G5		
Pantherophis ramspotti	Western Foxsnake	S1	G5		
Pantherophis vulpinus	Eastern Foxsnake	S1	G5		
Phrynosoma cornutum	Texas Horned Lizard	S2	G4G5		
Pituophis catenifer sayi	Bullsnake	SU	G5T5		
Plestiodon obsoletus	Great Plains Skink	S2	G5		
Plestiodon septentrionalis obtusirostris	Southern Prairie Skink	S3	G5T5		
Plestiodon septentrionalis septentrionalis	Northern Prairie Skink	S3	G5T5		
Sistrurus catenatus	Eastern Massasauga	SX	G3G4	E	C
Sistrurus tergeminus tergeminus	Prairie Massasauga	S1	GNR	E	
<b>Total Reptile Records: 21</b>					
<b>BIRDS (See Appendix A for Tracking Criteria)</b>					
Accipiter striatus	Sharp-shinned Hawk	S2	G5		
Anhinga anhinga	Anhinga	SU	G5		
Ardea alba	Great Egret	S3	G5		
Asio flammeus	Short-eared Owl	S2	G5		
Asio otus	Long-eared Owl	SU	G5		
Athene cunicularia	Burrowing Owl	SX	G4		
Bonasa umbellus	Ruffed Grouse	SU	G5		
Botaurus lentiginosus	American Bittern	S1	G4	E	
Buteo swainsoni	Swainson's Hawk	S2	G5		
Campephilus principalis	Ivory-billed Woodpecker	SX	G1		E
Certhia americana	Brown Creeper	SU	G5		
Chlidonias niger	Black Tern	SX	G4		
Circus cyaneus	Northern Harrier	S2	G5	E	
Cistothorus palustris	Marsh Wren	S3	G5		
Coragyps atratus	Black Vulture	S3	G5		
Corvus corax	Common Raven	SX	G5		
Coturnicops noveboracensis	Yellow Rail	SU	G4		
Cygnus buccinator	Trumpeter Swan	S1	G4		
Egretta caerulea	Little Blue Heron	S3	G5		
Egretta thula	Snowy Egret	S1	G5	E	
Elanoides forficatus	Swallow-tailed Kite	SX	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>BIRDS (Cont.)</b>					
Empidonax minimus	Least Flycatcher	SU	G5		
Falco peregrinus	Peregrine Falcon	S1	G4	E	
Gallinula galeata	Common Gallinule	S2	G5		
Geococcyx californianus	Greater Roadrunner	S3	G5		
Grus canadensis	Sandhill Crane	S1	G5		
Haliaeetus leucocephalus	Bald Eagle	S3	G5		
Ictinia mississippiensis	Mississippi Kite	S3	G5		
Ixobrychus exilis	Least Bittern	S3	G5		
Lanius ludovicianus	Loggerhead Shrike	S2	G4		
Laterallus jamaicensis	Black Rail	SU	G4		
Limnothlypis swainsonii	Swainson's Warbler	S2	G4	E	
Nycticorax nycticorax	Black-crowned Night-heron	S3	G5		
Pandion haliaetus	Osprey	S2	G5		
Passerina ciris	Painted Bunting	S3	G5		
Peucaea aestivalis	Bachman's Sparrow	S1	G3	E	
Picoides borealis	Red-cockaded Woodpecker	SX	G3		E
Porzana carolina	Sora	S2	G5		
Rallus elegans	King Rail	S1	G4	E	
Rallus limicola	Virginia Rail	S2	G5		
Setophaga cerulea	Cerulean Warbler	S2S3	G4		
Setophaga pensylvanica	Chestnut-sided Warbler	SU	G5		
Setophaga virens	Black-throated Green Warbler	SU	G5		
Sitta pusilla	Brown-headed Nuthatch	SX	G5		
Spinus pinus	Pine Siskin	SU	G5		
Sterna antillarum athalassos	Interior Least Tern	S1	G4T2Q	E	E
Tympanuchus cupido	Greater Prairie-chicken	S1	G4	E	
Tyto alba	Barn Owl	S3	G5		
Vermivora bachmanii	Bachman's Warbler	SX	GH		E
Xanthocephalus xanthocephalus	Yellow-headed Blackbird	S3	G5		
<b>Total Bird Records: 50</b>					
<b>MAMMALS</b>					
Bison bison	American Bison	SX	G4		
Canis lupus	Gray Wolf	SX	G4G5		E
Canis rufus	Red Wolf	SX	G1Q		E
Cervus elaphus	Elk or Wapiti	S?	G5		
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	S1	G3G4		
Corynorhinus townsendii ingens	Ozark Big-eared Bat	SX	G3G4T1	E	E
Ictidomys tridecemlineatus	Thirteen-lined Ground Squirrel	S2	G5		
Lasionycteris noctivagans	Silver-haired Bat	S3	G5		
Lasiurus seminolus	Seminole Bat	SA	G5		
Lepus californicus	Black-tailed Jackrabbit	S1	G5	E	
Lepus townsendii	White-tailed Jackrabbit	SX	G5		
Mustela frenata	Long-tailed Weasel	S3	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
<b>MAMMALS (Cont.)</b>					
Mustela nivalis	Least Weasel	S3	G5		
Myotis austroriparius	Southeastern Myotis	S1	G3G4		
Myotis grisescens	Gray Myotis	S3	G3	E	E
Myotis leibii	Eastern Small-footed Myotis	S2	G1G3		
Myotis septentrionalis	Northern Long-eared Myotis	S3	G1G3		T
Myotis sodalis	Indiana Myotis	S1	G2	E	E
Ochrotomys nuttalli	Golden Mouse	S3	G5		
Oryzomys palustris	Marsh Rice Rat	SU	G5		
Perognathus flavescens	Plains Pocket Mouse	S1	G5		
Peromyscus gossypinus	Cotton Mouse	S2	G5		
Poliocitellus franklinii	Franklin's Ground Squirrel	S2S3	G5		
Puma concolor	Mountain Lion	SX	G5		
Reithrodontomys montanus	Plains Harvest Mouse	S2	G5		
Spilogale putorius interrupta	Plains Spotted Skunk	S1	G5T4	E	
Sylvilagus aquaticus	Swamp Rabbit	S2	G5		
Tadarida brasiliensis	Brazilian Free-tailed Bat	SA	G5		
Taxidea taxus	American Badger	S3	G5		
<b>Total Mammal Records: 29</b>					

**Total Records Processed: 1143**

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## FOR MORE INFORMATION

MDC collects and manages information on the location and status of species and natural communities of conservation concern throughout the state. The Missouri Natural Heritage Database is a repository for this information.

If you have information on the location or questions about the status of any element on this *Checklist*, please write or call:

Heritage Coordinator  
Missouri Department of Conservation  
P.O. Box 180  
2901 W Truman Blvd  
Jefferson City, MO 65109  
(573) 522-4115

If you are requesting information about the location of any element on this *Checklist* for the purposes of environmental review, please write:

Policy Coordination  
Missouri Department of Conservation  
P.O. Box 180  
Jefferson City, MO 65109

## WEBPAGE

This checklist is updated annually. The most current version is always available by contacting MDC, Resource Science Division. *Checklist* information is also available on MDC's website:  
<http://on.mo.gov/1Oxwtqi>.

## CITATION

An appropriate citation for this edition of the *Checklist* is:

Missouri Natural Heritage Program. 2016. Missouri species and communities of conservation concern checklist. Missouri Department of Conservation. Jefferson City, Missouri. pp. 57.

**APPENDIX A**  
**BIRD SPECIES TRACKED IN MONHP AND THEIR CRITERIA FOR EORS**  
**Updated October 5, 2015**

<b>Species (ranks)</b>	<b>Regions</b>	<b>Criteria (safe dates), comments</b>
<b>Anseriformes (Ducks, geese, swans)</b>		
Trumpeter Swan (S1, G4)	All (NE, NW)	1
<b>Galliformes (chicken-like birds)</b>		
Ruffed Grouse (SU, G5)	CE, OZ, SL, SE	1
Greater Prairie-chicken (S1, G4)	SW, KC, NW, NE	Anytime observed
<b>Suliformes (anhinga)</b>		
Anhinga (SX, G5)	SE	1
<b>Pelecaniformes (herons, egrets, storks, ibises)</b>		
American Bittern (S1, G4)	All	1- extensive emergent marshes
Least Bittern (S3, G5)	All	1,2 (5/25-8/1)
Great Egret (S3, G5)	All (SE)	1
Snowy Egret (S1, G5)	SE	1
Little Blue Heron (S3, G5)	SE, SL	1
Black-crowned Night-Heron (S3, G5)	All (SE)	1
<b>Accipitriformes (hawks, eagles, kites, vultures)</b>		
Black Vulture (S3, G5)	OZ, SE	1
Osprey (S2, G5)	All (confirmed NE, SW)	1- Any large open body of water
Swallow-tailed Kite (SX, G5)	SE	1- Formerly SE, large rivers
Mississippi Kite (S3, G5)	All (SE, SL, NE)	1- Expanding range
Bald Eagle (S3, G4)	All	1- Any large open body of water
Northern Harrier (S2, G5)	All (except OZ, SE)	1
Sharp-shinned Hawk (S2, G5)	All	1
Swainson's Hawk (S2, G5)	SW, KC	1
<b>Gruiformes (rails, cranes)</b>		
Yellow Rail (SU, G4)	All	Anytime observed (migrant)
Black Rail (S1, G4)	All	Anytime observed, large marshes
King Rail (S1, G4G5)	All (SE, SL, NE)	1,2 (5/30-7/31)
Virginia Rail (S2, G5)	All	1,2 (5/15-8/1)
Sora (S2, G5)	All	1,2 (5/30-7/31)
Common Gallinule (S2, G5)	All (except OZ)	1,2 (5/30-8/31)
Sandhill Crane (S1, G5)	NE, NW, CE, SL	1
<b>Charadriiformes (gulls, terns, shorebirds)</b>		
Interior Least Tern (S1, G4T2Q)	SE	1- Formerly along MS, MO Rivers
Black Tern (SX, G4)	NW	1
<b>Cuculiformes (cuckoos, roadrunners)</b>		
Greater Roadrunner (S3, G5)	SW, OZ	1
<b>Strigiformes (Owls)</b>		
Barn Owl (S3, G5)	All (SE)	1,2 (5/25-8/15)
Burrowing Owl (SX, G4)	NW	1
Long-eared Owl (SU, G5)	All	1-Forests, dense thickets near water
Short-eared Owl (S2, G5)	SW, NW, NE, KC	1,2 (5/1-8/31)

**Piciformes (Woodpeckers)**

Red-cockaded Woodpecker (SX, G3)	OZ, SE	Anytime observed
Ivory-billed Woodpecker (SX, G1)	All	Anytime observed

**Falconiformes (falcons)**

Peregrine Falcon (S1, G4)	SL, KC	1- Formerly along MO river bluffs
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**Passeriformes (perching birds)**

Least Flycatcher (SU, G5)	NE, NW	1,2 (5/27-7/7)
Loggerhead Shrike (S2, G5)	All (SW, KC, NW)	1,2 (4/20-7/20)
Common Raven (SX, G5)	All	Anytime observed
Brown-headed Nuthatch (SX, G5)	OZ, SE	Anytime observed
Brown Creeper (SU, G5)	SL, NE, OZ	1,2 (5/15-9/15)
Marsh Wren (S3, G5)	All (except SW, SE, OZ)	1,2 (5/25-8/25)
Bachman's Warbler (SX, GH)	All	Anytime observed
Swainson's Warbler (S2, G4)	SE, OZ, SW	1,2 (5/25-8/15)
Cerulean Warbler (S2S3, G4)	All (OZ)	1,2 (6/1-8/10)
Chestnut-sided Warbler (S3, G5)	All	1,2 (6/1-8/10)
Black-throated Green Warbler (SU, G5)	SE	1
Bachman's Sparrow (S1, G3)	OZ, SW, SE	1,2 (6/1-8/15)
Painted Bunting (S3, G5)	SW, OZ	1,2 (5/25-8/1)
Yellow-headed Blackbird (S3, G5)	NW (possible anywhere)	1
Pine Siskin (SU, G5)	All	1

**MDC Region abbreviations (Regions listed are those in which the species is most likely to be recorded).**

<b>CE- Central</b>	<b>KC- Kansas City</b>
<b>NE- Northeast</b>	<b>NW- Northwest</b>
<b>OZ- Ozark</b>	<b>SL- St. Louis</b>
<b>SE- Southeast</b>	<b>SW- Southwest</b>

**Explanation of Criteria****1. Confirmed breeding. Evidenced one or more of the following:**

- Nest building (except wrens and woodpeckers)
- Nest with egg(s) or young (seen or heard)
- Used nest or eggshells
- Physiological evidence of breeding based upon bird in hand (e.g. brood patch)
- Distraction display or injury feigning
- Recently fledged young
- Adults entering or leaving nest site in circumstances indicating nesting
- Adult carrying fecal sac
- Adult carrying food

**2. Probable or possible breeding (valid only between safe dates)****Probable**

- Male and female seen together (not part of a flock)
- Bird holding territory
- Seven or more singing males detected in one visit
- Courtship or copulation
- Visiting probable nest site
- Agitated behavior or anxiety call (not provoked by observer)
- Nest building by wrens or woodpeckers

**Possible**

- Species heard or seen in breeding habitat

# PLANTS OF CONSERVATION CONCERN REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO\_ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_ Fed Status: \_\_\_\_\_ State Status: \_\_\_\_\_ SRANK: \_\_\_\_\_  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Scientific Name: \_\_\_\_\_ Common Name: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the species' location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_  
Locational Uncertainty (buffer radius): The mapped location is within \_\_\_\_\_ Meters OR \_\_\_\_\_ Feet OR \_\_\_\_\_ Miles

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Abundance (actual and/or estimated number observed): \_\_\_\_\_  
Condition (plants sterile, in bud, flower or fruit, evidence of disease, predation, or exotics): \_\_\_\_\_  
Person hours searching for Element: \_\_\_\_\_  
Specimen or photograph taken (collector/photographer, collection #, year, acquisition number and repository): \_\_\_\_\_  
General Habitat Description: \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)? Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.  
Return to: Resource Science Division – Heritage Botanist, Missouri Department of Conservation,  
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

## HERITAGE BIOLOGIST USE ONLY

EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments: \_\_\_\_\_  
Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_

# ANIMALS OF CONSERVATION CONCERN REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO\_ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_ Fed Status: \_\_\_\_\_ State Status: \_\_\_\_\_ SRANK: \_\_\_\_\_  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

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GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

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Person who marked the map (last name, first name): \_\_\_\_\_  
Locational Uncertainty (buffer radius): The mapped location is within \_\_\_\_\_ Meters OR \_\_\_\_\_ Feet OR \_\_\_\_\_ Miles

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Abundance (actual and/or estimated number observed): \_\_\_\_\_  
Condition (evidence of reproduction, disease, predation, injury, etc. For cave species, indicate hibernaculum, maternity, etc.): \_\_\_\_\_  
External Measurements: \_\_\_\_\_  
Person hours searching for Element: \_\_\_\_\_  
Sampling Methodology (traps, seining, call count, etc.): \_\_\_\_\_  
Specimen or photograph taken (collector/photographer, collection #, year, acquisition number and repository): \_\_\_\_\_  
General Habitat Description: \_\_\_\_\_

## CONSERVATION INFORMATION

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Is EO completely within boundaries of Managed Area(s)? Yes OR Partially  
Owner(s): \_\_\_\_\_  
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General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

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## HERITAGE BIOLOGIST USE ONLY

EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments: \_\_\_\_\_  
Bat Biological Use: \_\_\_\_\_  
Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_



# TERRESTRIAL NATURAL COMMUNITY REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO\_ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_ GELCODE: \_\_\_\_\_ Gelcode Conf. Level: 1 2 3  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Terrestrial Natural Community Name/Type: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the natural comm. location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_  
Locational Uncertainty (buffer radius): The mapped location is within \_\_\_\_\_ Meters OR \_\_\_\_\_ Feet OR \_\_\_\_\_ Miles

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Plant species composition (5-10 dominant or characteristic plant taxa by scientific name): \_\_\_\_\_

General Habitat Description (describe substrate, topography and vegetation structure including acreage. E.g., "Glade system with three openings of 1, 5, and 10 acres." If part of a natural community complex, describe what percentage of the mapped polygon is made up of this EO type. E.g., "30% of a complex with wet-prairie and freshwater marsh."): \_\_\_\_\_

Community Significance (circle one): Significant Exceptional Notable

EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments (describe ecological integrity; i.e., resemblance to presettlement condition, lack of exotic species, presence of conservative species, floristic quality index values, etc.): \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)? Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Wildlife Division – Heritage Ecologist, Missouri Department of Conservation,  
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

## HERITAGE BIOLOGIST USE ONLY

Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_

# AQUATIC NATURAL COMMUNITY REPORTING FORM

Complete relevant fields for which you have information

## HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New \_\_\_\_\_ Update with mapping \_\_\_\_\_ Update without mapping \_\_\_\_\_  
EO ID: \_\_\_\_\_ EONUM: \_\_\_\_\_ ELCODE: \_\_\_\_\_  
Heritage mapper: \_\_\_\_\_ Heritage map QC'er: \_\_\_\_\_ Heritage Biologist: \_\_\_\_\_  
Heritage mapping date: \_\_\_\_\_ Heritage map QC date: \_\_\_\_\_ Heritage Biologist Date: \_\_\_\_\_

## ELEMENT IDENTIFICATION and LOCATION

Aquatic Natural Community Name/Type: \_\_\_\_\_  
Survey Site Name: \_\_\_\_\_  
Directions to the survey site: \_\_\_\_\_  
County(ies): \_\_\_\_\_  
USGS Quadrangle name(s): \_\_\_\_\_  
Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ Quarter Sections: \_\_\_\_\_  
GPS should be in NAD83, zone 15. If not, indicate: NAD \_\_\_\_\_ Zone \_\_\_\_\_  
UTM: Easting (X) \_\_\_\_\_ OR: Latitude (N) \_\_\_\_\_  
Northing (Y) \_\_\_\_\_ Longitude (W) \_\_\_\_\_  
Explanation of possible GPS unit inaccuracy: \_\_\_\_\_

## MAPPING

Attach a map with the natural comm. location clearly marked in hard copy, digital, or shapefile format. No county maps, please.  
Person who marked the map (last name, first name): \_\_\_\_\_

## ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): \_\_\_\_\_ Observer(s) (last name, first name): \_\_\_\_\_  
Aquatic assemblage (5-10 dominant or characteristic fish and/or aquatic invertebrate taxa by scientific name): \_\_\_\_\_  
General Habitat Description (describe stream order, miles to headwaters, riparian corridor condition, composition of riffles and pools, and other physical factors): \_\_\_\_\_  
Community Significance (circle one): Significant Exceptional Notable  
EO Rank: \_\_\_\_\_ Origin Subrank: \_\_\_\_\_ EO Rank Comments (describe ecological integrity; i.e., resemblance to presettlement condition, lack of exotic species, presence of conservative species, biologic integrity index values, etc.): \_\_\_\_\_

## CONSERVATION INFORMATION

Managed Area Name(s): \_\_\_\_\_  
Is EO completely within boundaries of Managed Area(s)?: Yes OR Partially  
Owner(s): \_\_\_\_\_  
Owner Comments (include address/phone number and other relevant comments): \_\_\_\_\_  
Management Comments (needs for management, protection, monitoring, and/or research; include RAM monitoring site number): \_\_\_\_\_

General Comments (include any associated species and/or any other relevant information): \_\_\_\_\_

Form completed by (last name, first name): \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.  
Return to: Resource Science Division – Heritage Coordinator, Missouri Department of Conservation,  
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

## HERITAGE BIOLOGIST USE ONLY

Reference(s) (include contact information for any new references): \_\_\_\_\_  
Version Author (last name, first name): \_\_\_\_\_